NASA STI Bulletin

1981-1983

1981

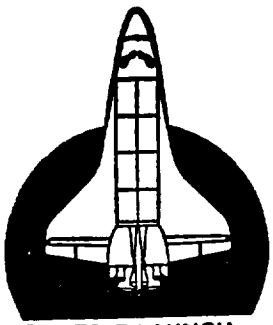
NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

81/1

JANUARY 1981



SHUTTLE LAUNCH
MARCH 1981

CONTENTS PAGE

Augmentation Processor installed at the acility

In December an Augmentation Processor was installed and placed in operation. The new processor, an IBM 4341, has a 4-megabyte core, complementing the IBM-360/65 with its 3-megabyte core. Disk storage for the two computers to work with at the Facility now totals 5.26 billion bytes.

The ORDER Command

The document ordering feature of the ORDER Command is currently undergoing joint evaluation by the Lewis Research Center and the Facility and will be in a test mode for the next several months. Please refrain from using the ORDER Command for documents at this time.

New Stored Search for your Use

A new stored search entitled NASAPUBS has been entered into the system and is available for your use. It selects all of the NASA SP's (Special Publications), RP's (Reference Publications), and CP's (Conference Proceedings) except for the NASA SP's in the 7000 series - the Continuing Bibliographies and Special Bibliographies. These series, e.g., Aerospace Medicine and Biology, Aeronautical Engineering, Energy, Earth Resources, etc., had to be omitted from the stored search because of their large accession number populations.

The new stored search will be exceedingly valuable to your operation when a client needs a few quality documents or references on NASA's efforts in the subject matter requested.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301)-796-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286). Other problems, suggestions, and comments may be directed to Buford Smith or John Wilson (Telephone: (202)-755-3465, NASA Headquarters, Code NST-42, Washington, D. C. 20546).

NASA SP's, RP's, and CP's represent the cream of NASA's documentation efforts. The new stored search will select them off the file in a few minutes, merging them into a collection set that can be matched against a subject of your choice.

Our sample below matches the NASA special publications against the "telecommunication" family.

To use the stored search enter BEGIN, or BB and follow with: Q EXECUTE NASAPUBS(ID43).

The following figures demonstrate its use followed by a display of the 6 hits using SF RN,UTL;ACC.

```
  ENTER:
  Q EXECUTE NASAPUBS(ID43)
  NASAPUBS EXECUTION STARTS

                                                  Q DISPLAY NASAPUBS(ID43)
SS                                                      LIST OF COMMANDS IN NASAPUBS
 SET  REC.  OCC. DESCRIPTION OF SET               01  LA 68-01/N,X
  1L   64     64 RN/NASA-SP-1//NASA-SP            02  S  RN/NASA-SP-1:NASA-SP-1999
  2L  112    112 RN/NASA-SP-2//NASA-SP            03  S  RN/NASA-SP-2:NASA-SP-2999
  3L  185    185 RN/NASA-SP-3//NASA-SP            04  S  RN/NASA-SP-3:NASA-SP-3999
  4L   72     72 RN/NASA-SP-40//NASA-S            05  S  RN/NASA-SP-4:NASA-SP-4999
  5L  187    187 RN/NASA-SP-50//NASA-S            06  S  RN/NASA-SP-5:NASA-SP-5999
  6L    7      7 RN/NASA-SP-6//NASA-SP            07  S  RN/NASA-SP-6:NASA-SP-6999
  7L  129    129 RN/NASA-SP-80//NASA-S            08  S  RN/NASA-SP-8:NASA-SP-8999
  8L    1      1 RN/NASA-SP-90//NASA-S            09  S  RN/NASA-SP-9:NASA-SP-9999
  9L  170    170 RN/NASA-CP-00//NASA-C            10  S  RN/NASA-CP-:
 10L   65     65 RN/NASA-RP-10//NASA-R            11  S  RN/NASA-RP-:
 11L  992    992 1+2+3+4+5+6+7+8+9+10             12  C  #1-#10/+


SE TELECOMMUNICATION+ATL/TELECOMMUNICATION:+TX/TELECOMMUNICATION:
   12L  3643   3643 ST/TELECOMMUNICATION

   13L   550    625 ATL/TELECOMMUNICATION                                    ATL/TEL

ECOMMUNICATIONS                 ROOT/TELECOMMUNICATION

   14L   442    574 TX/TELECOMMUNICATION                                     TX/TELE

COMMUNICATIONS                  ROOT/TELECOMMUNICATION

 15L  3926   4205 12+13+14

ENTER:
C 11+15
 16L     7      7/11+15

ENTER:
SF RN,UTL;ACC
FORMAT-DEFINITION ACCEPTED.

ENTER:
D 16/4/1-7
          DISPLAY 16/4/1-4 OF 7
RPT#: NASA-CP-2040   UTTL: THE MSFC/UAH DATA MANAGEMENT SYMPOSIUM
      78N74659
RPT#: NASA-RP-1027 L-12087-VOL-2   UTTL: VIKING '75 SPACECRAFT DESIGN AND TEST
      SUMMARY. VOLUME 2: ORBITER DESIGN
      81N10101
RPT#: NASA-SP-5972(05)   UTTL: COMMUNICATIONS TECHNIQUES AND EQUIPMENT: A
      COMPILATION
      76N22425
RPT#: NASA-SP-5972(07)   UTTL: ELECTRONIC CIRCUITS: A COMPILATION
      76N20372
          DISPLAY 16/4/5-7 OF 7
RPT#: NASA-SP-313 LC-72-600226   UTTL: SPACE FOR MANKIND'S BENEFIT
      73N13829
RPT#: NASA-SP-5950(01)   UTTL: ELECTRONIC CIRCUITS FOR COMMUNICATIONS SYSTEMS:
      A COMPILATION
      72N19206
RPT#: NASA-SP-151   UTTL: RELAY PROGRAM  FINAL REPORT
      69N21065
```

Index for 1980 RECON Users Bulletins

The Index for NASA RECON User's Bulletin 80/1 through 80/12 is forwarded as a separate entity with this bulletin

Index to NASA Recon User's Bulletin

January - December 1980
80/1 through 80/12

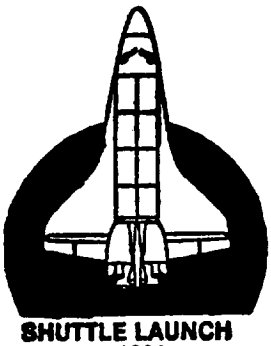
NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

81/2

FEBRUARY 1981



CONTENTS

NASA/RECON Access Policy

Questions have arisen concerning the policy for allowing online access to NASA/RECON. Access is now being offered to NASA contractors and Federal agencies that assist NASA in its mission. It is anticipated that access will be extended to others at a later date. Current access charges are $120 per year, $15 per connect hour, and $.03 per citation, printed at the Facility; these charges will be reviewed annually.

NASA/RECON Advanced Training Plans

Basic RECON training has been given to 20 new users during January and February. Basic training programs will be offered throughout the year as new users join the RECON user community. Our advanced RECON training program for the remainder of CY 1981 has been carefully coordinated with the basic training program and is tentatively scheduled as follows:

April 14 - 15, 1981 (Tues. & Wed.)

At the Facility for LaRC, LeRC, JSC, KSC, MSFC, NSTL, Draper Lab., Pratt & Whitney (East Hartford), WFC, and RSIC.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301)-796-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286). Other problems, suggestions, and comments may be directed to Buford Smith or John Wilson (Telephone: (202)-755-3465, NASA Headquarters, Code NST-42, Washington, D. C. 20546).

May 18 - 19, 1981 (Mon. & Tues.)

At JPL (Pasadena) for JPL, Ames, DFRC, WESRAC, and TAC.

May 20 - 21, 1981 (Wed. & Thurs.)

At Rockwell (Downey) for Rockwell, General Dynamics, Boeing, Hughes, Northrop, and Martin Marietta.

October 13 - 14, 1981 (Tues. & Wed.)

At ARAC (Indianapolis) for ARAC, KASC, NCSTRC, Battelle, General Electric (Valley Forge), KY STAC, FL STAC, and KERR.

Advanced training at the aforementioned locations will include sessions on the use of the STORED SEARCH feature, use of File Collection N, NALNET, and advanced exercises using the KEEP and SORT commands.

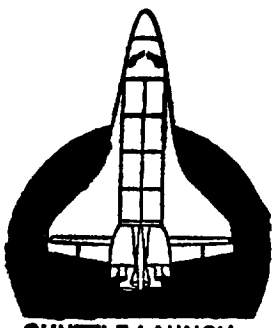
NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

81/3

MARCH 1981



SHUTTLE LAUNCH 1981

CONTENTS PAGE

Listing of New NASA/RECON Users

A listing of new NASA/RECON users grouped by U.S. time zone areas is presented in the attachment. The listing is provided with the expectations that certain information retrieval problems in the field may be solved quickly through informal interchange among field RECON users. Supplemental listings will be published in future bulletins as the user family becomes larger.

Please note that the listing does not include users from the NASA Centers, the NASA Industrial Application Centers, the Department of Energy, and others who have been linked to NASA/RECON prior to May 1978.

NASA/RECON Reference List Evaluation Sheets

A NASA/RECON Reference List Evaluation Sheet (NHQ Form 110) is included for each search made by field users. For system improvement, the NASA Scientific Technical Information Branch again requests that these forms be returned to NASA Headquarters after the lists have been prepared. Please ask the ultimate user of the search to complete the form and return it to your RECON office for perusal or analysis; and thence to NASA Headquarters through use of the pre-addressed and franked mailer.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301)-796-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286). Other problems, suggestions, and comments may be directed to Buford Smith or John Wilson (Telephone: (202)-755-3465, NASA Headquarters, Code NST-42, Washington, D. C. 20546).

New NASA/RECON Users - May 1978 through March 15, 1981

Pacific Time Zone (12)

Washington

Ms. Solange V. McIntire Mr. Fred Gaspar	The Boeing Co. Seattle, WN.	206-733-0584

California

Mr. Arthur Fried Ms. Helen Abbott	Lockheed Palo Alto, CA	415-493-4411 Ext. 5041
Ms. Martha Liles	Systems Control, Inc. Palo Alto, CA	415-494-1165 Ext. 350
Ms. Lorraine Pratt	SRI International Menlo Park, CA	415-859-9580
Ms. Edith Moore Mr. Robert Anthony	The Aerospace Corp. Los Angeles, CA	213-648-6738
Ms. Susan Clifford Mr. David Brown	Hughes Aircraft Los Angeles, CA	213-648-4668
Ms. Jeanne Balikos	Hughes Aircraft Culver City, CA	213-391-0711 Ext. 2615
Mr. Stanley A. Elman	Lockheed-California Burbank, CA	213-847-7185
Mr. H. W. Jones Ms. Virginia Crabtree	Northrop Corp. Hawthorne, CA	213-970-4136
Ms. Fumiko G. Oiye	TRW Redondo Beach, CA	213-536-2150
Ms. Jean Davis	Rockwell International Downey, CA	213-922-3807 213-922-1522
Mr. Urban J. Sweeney	General Dynamics Convair San Diego, CA	714-277-8900 Ext. 1073

Mountain Time Zone (5)

Colorado

Mr. Jay R. McKee	Martin Marietta Aerospace Denver, CO	303-973-5512
Ms. Sallye W. Smith	University of Denver Denver, CO	303-753-2422
Ms. JoAnne Gardner	Science Applications, Inc. Englewood, CO	303-733-6900

Arizona

Mr. George Machovec	Arizona State University Tempe, AZ	602-965-7608

New Mexico

Ms. Georgiana Hillyer Ms. Martha Adamson	Air Force Weapons Lab. Kirtland AFB, NM	505-844-0250

Central Time Zone (5)

Minnesota

Ms. Marlys J. Johnson	FluiDyne Minneapolis, MN	612-544-2721
Ms. Maro Theologides	Honeywell Systems and Research Minneapolis, MN	612-378-4238

Tennessee

Ms. Gay D. Goethert Ms. Effie Boyd	Arnold Eng. Dev. Ctr. Arnold AFS, TN	615-455-2611 Ext. 7604

Texas

Mr. Fred W. Todd	USAF School of Aerospace Medicine Brooks AFB, TX	512-536-3721

Texas (Cont.)

Mr. Thomas P. McGinty	Vought Corp. Dallas, TX	214-266-4660 214-266-5168

Eastern Time Zone (17)

Massachusetts

Ms. Hope Coffman	C. S. Draper Lab., Inc. Cambridge, MA	617-258-3555
Ms. Kathleen A. Long	Honeywell Electro-Optics Lexington, MA	617-862-6222 Ext. 310
Ms. Janice F. Bower	MIT Lincoln Lab. Lexington, MA	617-862-5500 Ext. 7198

Connecticut

Ms. Margaret D. Wood Ms. Lynn Savitzky	Perkin-Elmer Corp. Norwalk, CT	203-834-4949
Ms. Reta Yeh	United Technologies E. Hartford, CT	203-727-7120

New York

Mr. Lester M. Breslauer	Bell Aerospace TEXTRON Buffalo, NY	716-297-1000 Ext. 7011

Pennsylvania

Mr. Larry Chasen Ms. Denise Rich	General Electric Philadelphia, PA	215-962-4700
Ms. Marie Knup	United Engineers & Constructors, Inc. Philadelphia, PA	215-422-3000

New Jersey

Ms. Mary Pfann	RCA Astro-Electronics Princeton, NJ	609-448-2247

	New Jersey (Cont.)	
Ms. Olive Whitehead	RCA Gov. Comm. Systems Camden, NJ	609-338-3488
	Maryland - Washington, D.C.	
Ms. Suzanne Levitas	OAO Corp. Beltsville, MD	301-937-3090
Ms. Donna Hickling Ms. Linda Dodson	Booz Allen & Hamilton, Inc Bethesda, MD	301-951-2786
Ms. Elsie Cerutti Ms. Diane Cunningham	National Bureau of Standards Washington, D.C.	202-921-3451
	Georgia	
Ms. Jean Kirkland Mr. James B. Dodd	Georgina Institute of Technology Atlanta, GA	404-894-4528
Mr. Charles K. Bower Mr. Ted Kopkin	Lockheed-Georgia Marietta, GA	404-424-2928
	Florida	
Ms. Cheryl D. Higham	Embry-Riddle Aeronautical University Daytona Beach, FL	904-252-5561
	Ohio	
Mr. William M. Buckel	Battelle Columbus, OH	FTS 976-6312
Ms. Eileen W. Stephenson Ms. Anne Foreman	Air Force Wright Aeronautical Lab. W. P. AFB, OH	513-255-3630

NASA
National Aeronautics and Space Administration

Scientific and Technical Information Branch

RECON User's Bulletin

81/5

MAY 1981

CONTENTS

NASA/RECON Advanced Training Plans for October 1981 - Change in Dates

The two-day advanced training session scheduled for October 13-14 (Tues. and Wed.) at ARAC in Indianapolis, as announced in NASA/RECON User's Bulletin 81/2, has been changed to October 14-15 (Wed. and Thurs.). The change was required because Monday, October 12, is Columbus Day. A slippage of one day means that no one will be required to travel on a holiday.

Title Sort of NASA Library Network Accessions (Books)

In NASA/RECON User's Bulletin 80/5 of May 1980 the double sorting of book titles, a lowercase sort from a to z followed by an uppercase sort from A to Z was discussed. Lowercase titles were caused by use of a Title Prefix - mostly for the letter "A" and the word "The".

The sorting algorithm has now been modified to intermingle initial lowercase and uppercase characters of the first alphabetical character of the first sortable word in the title. See example of the current title sort of the book file on page 2.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301)-796-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286). Other problems, suggestions, and comments may be directed to Buford Smith or John Wilson (Telephone: (202)-755-3465, NASA Headquarters, Code NST-42, Washington, D. C. 20546).

Title Sort of NASA Library Network Continued

```
SEARCH NO.    009
SEARCH TITLE  TITLE SORT
DATE/FILE     05-13-81/F
SEARCH BY     PFE
REQUESTER     PFE
STREET        FACILITY
CITY/STATE    BWI/MD 21240
USER ID       ID41

TERMINAL 65   4-23-81
              TOTAL TIME PER COMMAND FOR THIS USER
  RECON       TIME          RECON       TIME          RECON       TIME
 COMMAND      MIN  NO      COMMAND      MIN  NO      COMMAND      MIN  NO
BEGIN SEARCH 056.19  0  COMBINE      000.00  0  PRINT          000.02  4
EXPAND       000.00  0  LIMIT        000.01  1  LIMIT ALL      000.00  0
DISPLAY      000.00  5  KEEP         000.00  0  END SEARCH     000.85  3
SELECT       001.10  1  TYPE         000.00  0  ERROR          000.00  0
DISPLAY SET  000.00  1  MESSAGE      000.00  0  ITEMS PRINTED      352

              TOTAL ELAPSED TIME IS 003.75 MIN.


SET  NO. DESCRIPTION
1  1317   1359 TTL/DICTIONARY
2   176    179 )1/80-81
3   176    176 SORT  02/UTL /
```

Set 3 is SORTED by UTL

80V52153 Concise Russian-English scientific dictionary for students and research workers :

81V13728 Condensed chemical dictionary.

80V28090 Cyclopedic medical dictionary Taber's Cyclopedic medical dictionary /

80V28838 Data systems dictionary :

80V25251 Department of Defense dictionary of military and associated terms :

81V19209 devil's DP dictionary /

80V12601 Dictionary catalog.

80V54382 dictionary catalogue /

81V12818 Dictionary catalog of the Library of the Center for Applied Linguistics, Washington, D.C.

81V13480 Dictionary catalog of the Research Libraries of the New York Public Library, 1911-1971.

81V10061 Dictionary for computer languages /

80V51589 Dictionary of accounting /

80V55907 dictionary of American-English usage.

80V51327 Dictionary of architectural abbreviations, signs, and symbols.

80V40287 Dictionary of biomedical acronyms = Dictionaire d'acronymes biomedicaux :

81V11937 dictionary of British ships and seamen /

81V18616 dictionary of Canadian economics /

80V47153 Dictionary of civil engineering /

81V10235 Dictionary of data processing /

80V34397 Dictionary of dinosaurs /

80V52325 Dictionary of earth science, English-French, French-English =

81V12760 Dictionary of economics and commerce, English, French, Arabic =

80V22363 Dictionary of electrical engineering /

80V40431 Dictionary of electronics /

81V21003 Dictionary of engineering and technology :

80V18448 Dictionary of environmental engineering and related sciences :

80V21953 Dictionary of environmental protection =

81V10874 Dictionary of fire technology /

80V25214 Dictionary of foreign terms /

81V21630 Dictionary of gaming, modelling & simulation /

80V15701 dictionary of geology.

81V15980 Dictionary of land surveyors and local cartographers of Great Britain and Ireland, 1550-1850 /

SF ACC,UTL

TERMINAL 65 PAGE 2 (ITEMS 33- 84 OF 176)

NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

81 /6

JUNE 1981

CONTENTS

The EXPAND Command

In RECON training courses the use of EXPAND, particularly for an author search, has been stressed. Names may appear in a variety of ways in the data base. A basic difficulty in consistency in an author's name is that names are taken as they appear on a document; and an author's name may be presented differently in several reports he has written or co-authored. In many cases a cataloger cannot be sure that he/she is dealing with the same author. Decisions as to how to treat given names, initials, surnames, compound names, etc., are usually made for several reasons, reflecting both cataloging and computer system requirements, which may not be evident.

For example, you are looking for all references by W. F. O'Brien. If you SELECT AU/O'BRIEN, W. F., you will find one reference. However, if you enter EXPAND AU/O'BRIEN, W. F., you will see:

```
-E06   AU/O'BRIEN, W. F.          N   1   0
 E07   AU/O'BRIEN, W. F., JR.     N   2   0
```

Examination of the corporate sources and the subject matter for these authors will indicate that they are one and the same person. You now have three references instead of one. You could also have achieved the same result by truncation:

```
SELECT AU/O'BRIEN, W. F.:
```

Another approach to explore is to EXPAND the name without an apostrophe; giving an additional thirteen references:

```
-E06   AU/OBRIEN, W. F.           N   1   0
 E07   AU/OBRIEN, W. F., JR.      N   12  0
```

or a grand total of sixteen references, fifteen of which could have been missed without an expand.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301)-796-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286). Other problems, suggestions, and comments may be directed to Buford Smith or John Wilson (Telephone: (202)-755-3465, NASA Headquarters, Code NST-42, Washington, D. C. 20546).

EXPAND Command Cont.

A name with the prefix Mc could have appeared prior to a rule standardization in 1972 both with and without a space between it and the second part of the names. Since then such names should be indexed without the space.

Names like C. S. Wang Chang should be checked under Chang, C. S. W. as well as Wang Chang, C. S.

Variations also occur in some foreign names because the translations are done according to different rules. Some translators will transliterate two Russian letters as YA and YU, while others transliterate the same letters as IA and IU.

For example, the author I. P. Yudenkow also appears as I. P. Iudenkow. Some translators will end Russian names - and other appropriate words - with a double i, while others will change the second i to y, as in the case of V. V. Yablonskiy who also appears as V. V. Iablonskii.

In German names, sometimes the umlaut over an A, O, or U is indicated in translation by the addition of an E following the vowel. Sometimes this E is omitted, as in the case of E. J. W. Muller for E. J. W. Mueller. If the EXPAND command is used, both spellings can be checked easily.

In the case of uncertainty as to whether the two authors are actually two authors or one with two spellings, select each name separately. Put in a specified format: SF ACC,CO,PAA;UTL and display each set in format 4:

```
DISPLAY 5/4
DISPLAY 6/4
```

If the corporate sources or personal author affiliations are the same, and the subject matter is related, then it's probable that the two are the same individual.

New Online Users Group

A new online users group has been formed in Central/Eastern Kentucky. It has been tentatively christened as Central/Eastern Kentucky Online Users Group, or C/EKOUG.

New Online Users Group

Additional information on the group may be obtained from:

Ms. Stephanie Allen, Reference Librarian
University of Kentucky Medical Center Library
MS-135 Chandler Medical Center Library
Lexington, KY 40506

Mr. Robert F. Jack, Information Services Coordinator
NASA/UK Technology Applications Program
109 Kinkead Hall
University of Kentucky
Lexington, KY 40506

National Aeronautics and Space Administration

Scientific and Technical Information Branch

RECON User's Bulletin

81/7

JULY 1981

CONTENTS

Frequency Command

The Frequency Command is a powerful aid for developing a search strategy in an interactive mode. However, care must be exercised in its use. The Frequency Command executed against a set from File Collection D will result in a "sub-task abort" if it contains an ASRDI accession (D series, e.g., 75D10001).

As a precautionary measure, ensure that your set for Frequency action is devoid of "D" accessions. You may limit the set in question to the "D" series and then eliminate the "D" set by the "NOT" command; or you may limit the desired set to A, B, K, M, X, and W Series.

NASA/RECON Basic Training Workshop

The next NASA/RECON Basic Training Workshop will be held at the STI Facility on September 22 and 23 provided a quorum of between 7 and 10 new users can be assembled. New users who have not received any formal training are requested to inform Mr. Philip F. Eckert at the Facility of their plans for the September training sessions (301-796-5300, ext 363 or 374).

New Features Requested for RECON

As a result of discussions during the last two training sessions (California Groups in May and basic training at the STI Facility in June), the two most desired features for RECON are discussed below.

- Shift to 1200 Baud Rate for Dial-In. Work is in process at the Facility for this feature. A target date for completion of the systems effort to make the 1200 Baud rate an option on RECON for dial-in is spring 1981. The actual shift to 1200 Baud will

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301)-796-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286). Other problems, suggestions, and comments may be directed to Buford Smith or John Wilson (Telephone: (202)-755-3465, NASA Headquarters, Code NST-42, Washington, D. C. 20546).

New Features Continued

be dependent upon the completion of a currently active project to convert the communications processing to a more reliable system.

- o Continuous Display on a Dial-In Terminal. The need and possible implementation of this feature is under consideration. Future progress and decisions concerning implementation will be publicized when appropriate.

If you as a RECON user have any pet ideas or features you think should be added to NASA/RECON, such as continuous display, please communicate them by note to Buford Smith, Code NST-42, NASA Headquarters, Washington, D.C. 20546.

Telephone Number Change

Effective August 5, 1981, the RECON Coordinator's telephone number will be changed to 301-621-2988. This is a commercial telephone number which is a local number from Washington, D.C. and may be accessed directly via FTS.

To ensure uninterrupted service to the RECON user community the current FTS number will be retained for about two weeks following the installation of the new number.

NASA
National Aeronautics and Space Administration

Scientific and Technical Information Branch

RECON User's Bulletin

81/8

AUGUST 1981

CONTENTS

NASA/RECON Advanced Training Workshop - October 1981

As announced in RECON User's Bulletins 81/2 and 81/5, a NASA/RECON Advanced Training Workshop will be held at ARAC in Indianapolis on October 14 and 15. The workshop will be held primarily for personnel from ARAC, NIAC at University of Pittsburgh, North Carolina Science and Technology Research Center, Battelle, General Electric (Valley Forge), NASA/Florida State Technology Center, NASA/University of Kentucky Application Program, and the Kerr Industrial Applications Center (S.E. Oklahoma State University). Others may attend; those organizations who have made reservations for the workshop are requested to re-affirm their reservations. Organizations planning to send one or more representatives to the workshop are requested to inform Mr. Philip F. Eckert at the Facility of their plans (301-796-5300, ext. 363 or 374).

Use of NASA/RECON as a Special Dictionary

Time and again Facility personnel and virtually all technical information processing personnel throughout the world have been confronted with technical terms or acronyms that defy definitions. The acronym CAT can be easily conquered by medically-oriented personnel (Computerized Axial Tomography - now called CT for Computerized Tomography) or by atmospheric physicists or meteorologists (Clear Air Turbulence). These are the easy types because they have been listed in some dictionaries, manuals, textbooks, or encyclopedias.

But what about those that have not been listed?

Our first example is to find the definition of DIAKOPTICS on RECON.

Solution

SELECT TX/DIAKOPTIC: (Root Search)

```
    1      6      11 TX/DIAKOPTIC                                          TX/DIAK
OPTICS                              ROOT/DIAKOPTIC
```

PRIMARY DATA BASE ONLINE
DISPLAY 01/2/2
72A25282# ISSUE 11 PAGE 1577 CATEGORY 3 71/00/00 7 PAGES IN RUSSIAN UNCLASSIFIED DOCUMENT
UTTL: COMPUTER METHODS FOR ANALYZING THE STATES OF COMPLEX ELECTRICAL NETWORKS BY SEPARATION INTO SMALLER PORTIONS
UNOC: DIGITAL COMPUTER CALCULATION OF COMPLEX ELECTRIC NETWORKS DESCRIBED BY MATHEMATICAL MODELS, CALCULATING FLOW DISTRIBUTION
AUTH: A/KHRUSHCHOVA, E. V. PAA: A/(AKADEMIIA NAUK UKRAINSKOI SSR, INSTITUT ELEKTRODINAMIKI, KIEV, UKRAINIAN SSR)
PROBLEMY TEKHNICHESKOI ELEKTRODINAMIKI, NO. 30, 1971, P. 20-26. IN RUSSIAN.
MAJS: /*COMPUTER TECHNIQUES/*ELECTRIC NETWORKS/*FLOW DISTRIBUTION/*MATHEMATICAL MODELS/*NETWORK ANALYSIS
MINS: / ALGORITHMS/ COMPLEX SYSTEMS/ DIGITAL COMPUTERS/ LINEAR EQUATIONS/ MATRICES (MATHEMATICS)/ SYSTEMS ANALYSIS
ABA: T.M.
ABS: ** DIAKOPTICS ** (SYSTEM TEARING) IS A METHOD OF SEPARATING A LARGE SYSTEM INTO SEVERAL SMALLER SYSTEMS, EACH DESCRIBED BY A SEPARATE MATHEMATICAL MODEL. THE EFFECTS OF ALL OTHER SUBSYSTEMS ON EACH PARTICULAR SUBSYSTEM ARE EVALUATED, AND THE FINAL RESULT PROVIDES A SOLUTION FOR THE ENTIRE COMPLEX SYSTEM AS A WHOLE. KNOWN PROCEDURES FOR COMPUTER IMPLEMENTATION OF THE ** DIAKOPTICS ** METHOD ARE REVIEWED, AND EMPHASIS IS PLACED ON THE USE OF ** DIAKOPTICS ** IN COMBINATION WITH THE GAUSSIAN ELIMINATION PROCESS TO SOLVE A FLOW DISTRIBUTION PROBLEM ON THE BASIS OF NODAL OR CIRCUITAL (MESH) EQUATIONS.

Second Example - find the definition of PROP-FAN on RECON.

Solution

SELECT PROP-FAN in title and abstract and its variant PROPFAN in the abstract family

```
    1      24      24 UTP/PROP ++1 FAN
    2      27      68 AX/PROP ++1 FAN
    3      14      22 TX/PROPFAN
  4      50     114 1+2+3
  DISPLAY                                  DX111: PREVIOUS OUTPUT COMPLETED
```

DISPLAY 04/2/12
80A35950*# ISSUE 14 PAGE 2497 CATEGORY 7 RPT#: AIAA PAPER 80-0995
CNT#: NAS3-20614 80/06/00 13 PAGES UNCLASSIFIED DOCUMENT
UTTL: ACOUSTIC MEASUREMENTS OF THREE PROP-FAN MODELS
AUTH: A/BROOKS, B. M. PAA: A/(UNITED TECHNOLOGIES CORP., HAMILTON STANDARD DIV., WINDSOR LOCKS, CONN.)
CORP: HAMILTON STANDARD DIV., UNITED AIRCRAFT CORP., WINDSOR LOCKS, CONN.
AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS, AEROACOUSTICS CONFERENCE, 6TH, HARTFORD, CONN., JUNE 4-6, 1980, 13 P.
MAJS: /*ACOUSTIC MEASUREMENTS/*ENGINE NOISE/*NOISE REDUCTION/*PROPELLER FANS/* SCALE MODELS/*TURBOPROP ENGINES
MINS: / FAR FIELDS/ MICROPHONES/ NEAR FIELDS/ SHADOWGRAPH PHOTOGRAPHY/ SHEAR LAYERS/ SWEEP ANGLE/ TEST FACILITIES
ABA: (AUTHOR)
ABS: RESULTS OF NASA SPONSORED ACOUSTIC TESTS OF THREE 2 FT. DIAMETER MODELS OF THE PROP-FAN (A SMALL DIAMETER, HIGHLY LOADED, MANY-BLADED VARIABLE PITCH ADVANCED TURBOPROP) ARE PRESENTED. THE HIGHLY SWEPT MODEL DESIGNED FOR NOISE REDUCTION PRODUCES SUBSTANTIALLY LESS NEAR FIELD NOISE AT SIMULATED 0.8 MACH NUMBER CRUISE CONDITIONS THAN THE UNSWEPT OR SLIGHTLY SWEPT MODELS. IT ALSO PRODUCES LESS FAR FIELD NOISE AT CONDITIONS SIMULATING TAKEOFF AND LANDING. THE NOISE REDUCTION MECHANISM IS DISCUSSED. CORRELATION BETWEEN HARMONIC NOISE MEASUREMENTS AND THEORETICAL PREDICTIONS AND BETWEEN MEASURED AND PREDICTED ACOUSTIC PRESSURE PULSES IS GOOD. SHADOWGRAPH MEASUREMENTS WHICH SHOW THE LOCATION OF BLADE ASSOCIATED WAVE PATTERNS WERE OBTAINED. PREDICTED AND MEASURED WAVE LOCATIONS SHOW GOOD GENERAL AGREEMENT. FULL SCALE NEAR AND FAR FIELD NOISE IS PREDICTED.

Third Example - find the definition of EFG on RECON.

Select TX/EFG

```
ENTER:
***** AUTOMATIC END SEARCH BYPASS *****
SEARCH TITLE
DATE/FILE    08-14-81/D
***** BEGIN SEARCH BYPASS *****
DATE/FILE    8-14-81/D
PRIMARY   DATA BASE ONLINE
SET  NO.OF  NO.OF   DESCRIPTION OF SET
NO.   REC.   OCC.   (+=OR, *=AND, -=NOT)
---  -----  -----  --------------------
    1     60     86 TX/EFG
          DISPLAY 01/2/5
      80A35482   ISSUE 14   PAGE 2576   CATEGORY 44   80/02/00  17 PAGES
      UNCLASSIFIED DOCUMENT
UTIL: ELECTRON-BEAM-INDUCED CURRENT CHARACTERIZATION OF POLYCRYSTALLINE SILICON
      SOLAR CELLS
AUTH: A/HANOKA, J. I.   PAA: A/(MOBIL TYCO SOLAR ENERGY CORP., WALTHAM, MASS.)
      (PHOTOVOLTAIC MATERIAL AND DEVICE MEASUREMENTS WORKSHOP, ARLINGTON, VA.,
      JUNE 11-13, 1979.) SOLAR CELLS, VOL. 1, FEB. 1980, P. 123-139.
MAJS: /*CRYSTAL DEFECTS/*ELECTRON BEAMS/*ELECTRON MICROSCOPY/*SOLAR CELLS
MINS: / ENERGY TECHNOLOGY/ GRAIN BOUNDARIES/ IMPURITIES/ ION IMPLANTATION/
      POLYCRYSTALS/ RIBBONS
ABA:  (AUTHOR)
ABS:  THE USE OF THE ELECTRON-BEAM-INDUCED CURRENT MODE OF THE SCANNING ELECTRON
      MICROSCOPE FOR RECOMBINATION STUDIES IN POLYCRYSTALLINE SILICON SOLAR
      CELLS IS REVIEWED. THE POTENTIAL AND SOME LIMITS OF THE TECHNIQUE ARE
      DISCUSSED. QUANTITATIVE STUDIES AND REPRESENTATIVE RESULTS FOR
      EDGE-DEFINED FILM-FED GROWTH (  **  EFG)  **   RIBBON SOLAR CELLS AND
      OTHER KINDS OF SILICON SOLAR CELLS ARE PRESENTED AND COMPARED. QUESTIONS
      CONCERNING RECOMBINATION BY IMPURITIES AND DEFECTS SUCH AS DISLOCATIONS,
      GRAIN BOUNDARIES AND SIC PARTICLES AND THE INTERACTIVE EFFECTS OF ALL
      THESE ARE DISCUSSED AT SOME LENGTH.
```

RECON Challenges

(1) Find on RECON the definition or the most closely related terms to the term OVONIC DEVICES. (Hint: Search titles and abstracts for the truncated expression OVONIC: - then use the FREQUENCY command.)

(2) Find the definition or the meaning of TEA LASER, using text search.

Solutions to RECON Challenges

Solutions to RECON challenges are on the last page. Do not look at them until you have attempted to solve the challenges.

SOLUTIONS TO RECON CHALLENGES

OVONIC DEVICES

```
    1     10     14 TX/OVONIC
    2     13     15 ATL/OVONIC
  3     19     29 1+2
TERM FREQUENCY DISTRIBUTION - SET 03 - 019 CITATIONS - 00030 SUBJECT TERMS   -01
REF      SUBJECT TERM              FREQ    F022  ELECTRICAL IMPEDANCE------  0002
F001  SWITCHING CIRCUITS--------  0011    F023  GLASS--------------------  0002
F002  THIN FILMS----------------  0008    F024  LASER MATERIALS-----------  0002
F003  AMORPHOUS SEMICONDUCTORS--  0007    F025  OPTICAL PROPERTIES--------  0002
F004  SEMICONDUCTOR DEVICES-----  0007    F026  PERFORMANCE TESTS---------  0002
F005  COMPUTER STORAGE DEVICES--  0005    F027  SWITCHES-----------------  0002
F006  ELECTRICAL PROPERTIES-----  0005    F028  THRESHOLD GATES----------  0002
F007  SEMICONDUCTING FILMS------  0005    F029  VOLT-AMPERE CHARACTERISTIC  0002
F008  BIBLIOGRAPHIES------------  0003          S-----------------------
F009  COMPONENT RELIABILITY-----  0003    F030  WAVEFORMS----------------  0002
F010  ELECTRIC SWITCHES---------  0003
F011  ELECTRONIC EQUIPMENT TESTS  0003
F012  LOGIC CIRCUITS------------  0003
F013  RADIATION EFFECTS---------  0003
F014  SELENIDES-----------------  0003
F015  SEMICONDUCTORS (MATERIALS)  0003
F016  SWITCHING-----------------  0003
F017  TIN COMPOUNDS-------------  0003
F018  VACUUM DEPOSITION---------  0003
F019  AMORPHOUS MATERIALS-------  0002
F020  BISTABLE CIRCUITS---------  0002
F021  ELECTRIC PULSES-----------  0002
```

TEA LASERS

```
    1    157    180 AX/TEA **1 LASER
      2     58     64 LIMIT 1/73-76
KACC,ABS
FORMAT-DEFINITION ACCEPTED.
 SET  REC.  OCC. DESCRIPTION OF SET
  1   157    180 AX/TEA **1 LASER
  2    58     64 )1/73-76

ENTER:
        DISPLAY 02/4/13-14 OF 3
     76A17548   ABS: A SIMPLE RELIABLE TRANSVERSELY EXCITED ATMOSPHERIC (  **
     TEA) LASER  **   OPERATING WITH MODERATE REPETITION RATES AT 337 NM USING
     COMMERCIAL-GRADE N2 AT 1 ATM IS DESCRIBED. PRELIMINARY RESULTS FOR A RANGE
     OF OPERATING VOLTAGES AND CHANNEL SPACINGS ARE PRESENTED. THE LASER'S
     PULSE WIDTH IS ABOUT 1 NSEC. BEST ELECTRICAL EFFICIENCY TO DATE IS 0.039%
     AT 8.8 KV. AT 21 KV, 335 MICROJOULES/PULSE IS OBTAINED. ABOVE 16.7 KV,
     THE UNFOCUSED OUTPUT WILL PUMP A DYE SOLUTION TO SUPERRADIANCE AT A
     DISTANCE OF 1.5 M. FOR SUPPLY VOLTAGES LESS THAN 10 KV, A NOVEL
     CONFIGURATION FOR PREIONIZATION IS DESCRIBED.
     76A11422   ABS: ENERGY TRANSFER THROUGH ABSORBING MEDIA WITH PULSES SHORT
     COMPARED WITH THE ACOUSTIC TRANSIT TIME HAS BEEN INVESTIGATED
     EXPERIMENTALLY AND THEORETICALLY FOR COLLIMATED BEAMS IN A HOMOGENEOUS
     WIND FIELD.  TWO EXPERIMENTAL APPROACHES WERE USED: (1) A LOW INTENSITY CW
     CO2 LASER PROBE-BEAM TECHNIQUE GIVING A CONTINUOUS RECORD OF THE LENSING
     OF  THE MEDIUM FOLLOWING THE TRANSMISSION OF A COAXIAL HIGH-POWER   **
     TEA LASER  **   PULSE AND (2) A DIRECT DETERMINATION OF HIGH-POWER
     PULSE-TRAIN BLOOMING USING A THERMOFAX-COVERED DRUM. THE EXPERIMENTAL
     RESULTS SUPPORT THE PREDICTIONS OF A GEOMETRIC-OPTICS PERTURBATION
     SOLUTION AS WELL AS THOSE OF EXISTING PROPAGATION CODES. AN INTERESTING
     CASE, ENHANCEMENT RESULTING IN A 20-30% INCREASE OF THE ORIGINAL
     NONBLOOMED PEAK INTENSITY, IS OBSERVED WHEN THE PULSE SEPARATION TIME IS
     APPROXIMATELY 1 TO 2 TIMES THE WIND-FLOW TIME ACROSS THE BEAM.
```

NASA
National Aeronautics and Space Administration

ientific and Technical Information Branch

RECON User's Bulletin

81/9

SEPTEMBER 1981

CONTENTS

The Primary and Alternate Data Bases - Why?

A number of new RECON Users have asked why we have the Alternate and Primary Data Bases. Here is the story.

In 1973, a major problem at the Facility was computer power or lack of it - both CPU and storage capability. We were running out of space in the data cell and disk pack area. Mass storage costs were still relatively high and the chances to procure several additional mass storage devices were low. With an impending move, it was deemed unwise to replace the IBM 360/50 with a more powerful device or to add to our offline storage. The old computer room at College Park was already bursting at the seams.

The problem was simply solved by what we then called a "data base split." On August 28, 1974, we split the data base into two major segments.

- a Primary Data Base comprised essentially of accession years 1968 to date (1974) (approximately 732,000 accessions)
- an Alternate Data Base comprised essentially of accession years 1962 through 1967 (approximately 400,000 accessions)

There were several advantages and disadvantages emanating from the data base split. Computer search times were lowered because of the smaller files. The bulk of the search requests had "last five years" parameters that meant only the Primary Data Base had to be searched. The major disadvantage was the necessity to make two searches for a bibliographic query requiring coverage form 1962 to date.

The search queries for the Alternate and Primary Data Bases were different because of the indexing vocabularies. The 1962-1967 segment indexing was based on the old Subject Authority List (SAL for short). This authority list was the predecessor of the NASA Thesaurus. It lacked the current Thesaurus structure such as BT, NT, and RT (Broader, Narrower, and Related Terms) and its entries were based upon the singular term, e.g., Gallium Arsenide Laser instead of Gallium Arsenide Lasers. The NASA Thesaurus with its new ground rules was completed in late 1967 and implemented on January 1, 1968.

One other disadvantage at the time, now virtually forgotten, was the availability of the data bases. Because of the tightness, the Alternate Data Base was only available on Wednesday afternoons. The limited availability caused a delay in delivering search results, particularly for those search requests that were received late Wednesday afternoons or on Thursdays or Fridays. The searches had to be held up and mailed with a "delay notice" after the Primary Data Base searches had been run and mailed. We had double administrative handling tasks when we were forced into that mode.

Shortly after moving to the BWI Airport location the computer CPU and storage problems were solved. The IBM 360/50 was replaced by an IBM 360/65 and our disk storage capacity was expanded. We now have some 6.2 billion bytes of disk storage and have recently added an Augmentation Processor.

There are no plans to merge the two bases into a single data base similar to the one prior to the split. There are also no current plans for further splitting such as 1968 through 1975 and 1976 to date. The Limit All command, of course, fulfills all needs to limit a search for any chronological portion of the file, e.g., LIMIT ALL 79-81, 72-76, etc. See page 3 for makeup of two data bases.

PRIMARY DATA BASE (File Collection D)

File	File Number	Accession Series	Time Period
STAR	119	N-10,000	1968 onward
IAA	115	A-10,000	1968 onward
CSTAR	130	X-10,000	1968 onward
OSTARE	137	N-70,000	1968 onward
OCSTARE	136	X-70,000	1968 onward
TB	117	B-10,000	ALL
R& DCS	138	K-10,000	ALL
RTOP	139	W-70,000	ALL
AOSR	150	M-50,000	ALL
CPA	152	M-10,000	ALL
ASRCRYO	180	D-30,000	ALL
ASRFIRE	181	D-10,000	ALL
ASRMECH	182	D-50,000	ALL

ALTERNATE DATA BASE (File Collection G)

File	File Number	Accession Series	Time Period
STARA	419	N-10,000	1962-67
IAA	415	A-10,000	1963-67
CSTARA	430	X-10,000	1962-67
SSTAR	132	X-50,000	ALL
ASTAR	122	N-90,000	ALL
ACSTAR	135	X-90,000	ALL
OSTAR	121	N-80,000	1962-67
OCSTAR	134	X-80,000	1962-67
NTP	120	N-60,000/70,000	ALL (1962 GAP)
CNTP	133	X-60,000/70,000	ALL (1962 GAP)
LCAMB	116	A-80,000	ALL

Note: (1) All Tech Briefs are in Primary Data Base because the 1963 - 1967 segment was reindexed using NASA Thesaurus nomenclature.
(2) All N90 and X90 accessions (administrative documents) do not contain subject indexing and are contained in the Alternate Data Base.

$$\frac{\text{Primary Data Base Accessions}}{\text{Alternate Data Base Accessions}} \approx \frac{3}{1}$$

NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

81/10

OCTOBER 1981

CONTENTS

Listing of RECON Users as of October 27, 1981

A listing of all NASA/RECON users grouped by U.S. time zone areas is presented in the attachment. New users since the March issue of the NASA/RECON User's Bulletin are flagged by an asterisk. RECON users at the Facility and the STI Branch of NASA Headquarters have been purposely omitted.

Cancellation of Semiannual Indexes

Semiannual Indexes for IAA and STAR have been cancelled for 1982 and thereafter.

Novel Use of Frequency Command - by Leslie Whitaker of Ames Research Center

In her own words, Leslie Whitaker of Ames Research Center desires to share her novel use of RECON.

"I recently tried a gambit on RECON which turned out to be quite useful so I thought I'd pass it along.

Several scientists from Ames were preparing to visit a group of aerospace companies in order to discuss the application of computational fluid dynamic research to actual aircraft design. Prior to the visits some of the scientists spent time browsing through all the normal sources of information about such companies in order to get a picture of their current fields of concentration. I suggested that we could give them a profile of the work done at a given installation by doing a frequency sort on the company as "Corporate Source" on RECON.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301)-796-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286). Other problems, suggestions, and comments may be directed to Buford Smith or John Wilson (Telephone: (202)-755-3465, NASA Headquarters, Code NST-42, Washington, D. C. 20546).

Novel Use of Frequency (Cont')	The results turned out to be well received to the point that an additional person was sent in to get a rundown on the companies she would be visiting."
NASA/RECON Basic Training Plans	NASA/RECON Basic Training sessions (2 days) will be scheduled at the Facility on December 2 and 3 if sufficient interest is shown. Please communicate your intentions to Mr. Philip F. Eckert, Manager, Information Services Department at the Facility, 301-859-5300, x 374.
Facility Telephone Number Change	The Maryland telephone number for the Facility will change on Sunday November 8 from 301-796-5300 to 301-859-5300. The D.C. telephone number 202-621-1910 remains unperturbed.

NASA/RECON Users - October 27, 1981

Pacific Time Zone (23)

California (21)

Ms. Leslie Whitaker Ms. Betty Sherwood	NASA Ames Research Center Moffett Field, CA	415-965-5000
Ms. Karen Puffer	NASA Dryden Flight Research Center Edwards, CA	805-258-3311 Ext. 334
Ms. Carol Sterkin	JPL Pasadena, CA	213-354-6911
Dr. Robert Mixer Mr. Herb Asbury Ms. Patti Brown Ms. Becky Jensen	WESRAC - Univ. of So. Cal. Los Angeles, CA	213-741-7203 213-741-6132
Ms. Margaret Hu Ms. Jo Robinson	Univ. of California Berkeley	415-486-6307
Mr. Richard Hunt Ms. Berta Keizure	Univ. of California (LLL) Livermore, CA	415-422-5825
Mr. Arthur Fried Ms. Helen Abbott	Lockheed Missiles & Space Co. Palo Alto, CA	415-493-4411 Ext. 5041
Mr. Stanley Elman Ms. Suzanne Reed Ms. Renee Evans	Lockheed-California Co. Burbank, CA	213-847-7185
Ms. Susan Clifford Mr. David Brown	Hughes Aircraft Co. Los Angeles, CA	213-648-4668
Ms. Jeanne Balikos Ms. Dorothy Webb	Hughes Aircraft Co. Culver City, CA	213-391-0711 Ext. 2615
Mr. Urban Sweeney Ms. Colleen Alexander	General Dynamics San Diego, CA	714-277-8900 Ext. 1073
Ms. Jean Davis Ms. Roberta Shanman Ms. Nan Paik	Rockwell International Corp. Downey, CA	213-922-3807 213-922-1522
Ms. Marie Bangan	Dept. of Air Force-Space Div.* El Segundo, CA	213-643-0443
Ms. Margaret Duncan Ms. Kathy Wright	U.S. Naval Ocean Systems Center* San Diego, CA	714-225-6623
Ms. Fumiko Oiye	TRW Redondo Beach, CA	213-536-2150

*New User Since March 1981

Attachment

Ms. Susan Gentry	Santa Barbara Research Center * Goleta, CA	805-968-3511 Ext. 2542
Ms. Martha Liles	Systems Control, Inc. Palo Alto, CA	415-494-1165 Ext. 350
Ms. Lorraine Pratt Ms. Elizabeth Gill	SRI International Menlo Park, CA	415-859-9580
Ms. Virginia Anderson Ms. Johanna Tallman	Cal. Inst. of Technology* Pasadena, CA	213-356-4521
Ms. Edith Moore Mr. Robert Anthony	The Aerospace Corporation Los Angeles, CA	213-648-6738
Mr. Bill Jones Ms. Renee Soiffer	Northrop Corporation Hawthorne, CA	213-970-4136

Washington (2)

Ms. Solange V. McIntyre Mr. Fred Rasp	The Boeing Company Seattle, WA	206-773-0584
Ms. Shirley Gydesen	Pacific Northwest Laboratory Richland, WA	509-376-5451

Mountain Time Zone (15)

Arizona (2)

Mr. George Machovec Mr. Vladimir Borovansky	Arizona State University Tempe, AZ	602-965-7608 602-965-7607
Mr. Douglas Jones	University of Arizona* Tucson, AZ	602-626-5193 602-626-3706

Colorado (6)

Ms. Victoria Schneller	NOAA Boulder, CO	303-497-5571
Mr. Jay McKee	Martin Marietta Aerospace Denver, CO	303-973-5512
Ms. Sallye Smith	University of Denver Denver, CO	303-753-2422
Mr. Benedict Lo Bue	University of Colorado* Boulder, CO	303-492-7521

*New User Since March 1981

Mr. Charles Wenger Mr. William F. Rawson	National Center for Atmos. Res.* Boulder, CO	303-494-5151 Ext. 428
Mr. A. L. Lueck	Colorado State University* Fort Collins, CO	303-491-5911

New Mexico (5)

Mr. Walter Roose	Sandia Labs. Albuquerque, NM	505-264-1080
Ms. Mary Kaye Gallagher	TAC - Univ. of New Mexico Albuquerque, NM	505-277-3622
Mr. J. Arthur Freed	Los Alamos Scientific Lab. Los Alamos, NM	505-667-4448
Mr. Keith Newsome Ms. Georgianna Hillyer Ms. Martha Adamson	AFWL* Kirtland AFB, NM	505-844-0205
Mr. Joe Beltran	White Sands Text Facility* Las Cruces, NM	505-524-5642

Utah (2)

Ms. Ruth A. Frear	University of Utah Salt Lake City, UT	801-581-7702
Ms. Dorothy A. Alley Mr. G. R. Muir	Hercules, Inc.* Magna, UT	801-250-5911 Ext. 2952

Central Time Zone (19)

Alabama (3)

Ms. Margaret Willis	Marshall Space Flight Center Huntsville, AL	205-453-2121
Ms. Joyce Plaster	Redstone Scientific Info. Ctr. Open Literature & Reference Redstone Arsenal, AL	205-876-5195
Ms. Nancy Stillson	Redstone Scientific Info. Ctr. Document Reference Redstone Arsenal, AL	205-876-5181

*New User Since March 1981

	Illinois (1)	
Mr. John Frazier Ms. Betty Guttman	Argonne National Laboratory Lemont, IL	312-972-4225
	Minnesota (2)	
Ms. Marlys Johnson	Fluidyne Minneapolis, MN	612-544-2721
Ms. Maro Theologides	Honeywell, Inc. Minneapolis, MN	612-378-4238
	Mississippi (1)	
Ms. Mary Bush	National Space Technology Labs. Bay St. Louis, MS	601-688-3211
	Missouri (2)	
Dr. John Amos Mr. Fred Goss	Univ. of Missouri at Rolla Rolla, MO	314-241-4559
Mr. Carl Lauer	Mc Donnell Douglas Corp.* St. Louis, MO	314-233-6134
	Oklahoma (2)	
Mr. William Dodd Mr. Ron Marshall	Kerr Industrial Application Ctr. Durant, OK	405-924-6822 Ext. 413
Mr. Robert E. Oliver	ITRAD Innovation Center* Durant, OK	405-924-5094
	Tennessee (2)	
Ms. Effie Boyd Ms. Della Burch Ms. Gay D. Goethert	Arnold Eng. Dev. Ctr. Arnold AFS, TN	516-455-2611
Ms. Julia Redford	DOE Technical Information Center Oak Ridge, TN	615-576-1157
	Texas (6)	
Mr. Robert Phelps	Johnson Space Center Houston, TX	713-483-4047

*New User Since March 1981

Ms. Michelle Anderson	Life Sciences Project Division Johnson Space Center Houston, TX	713-483-2471
Mr. E. C. Ezell Mr. J. D. Haulbrook	Johnson History Office* Houston, TX	713-483-2838
Mr. Thomas McGinty	Vought Corporation Dallas, TX	214-266-5168
Mr. Fred W. Todd	USAF School of Aerospace Medicine Brooks AFB, TX	512-536-3721
Ms. Frances B. Waranius	Lunar & Planetary Institute* Houston, TX	712-486-2135

Eastern Time Zone (59)

Connecticut (3)

Ms. Margaret Wood Ms. Lynn Savitzsky	Perkin-Elmer Corp. Norwalk, CT	203-834-4949
Ms. Reta Yeh Mr. Alan Partridge	United Technologies E. Hartford, CT	203-727-7120
Mr. Joseph Murphy	AVCO Lycoming Division* Stratford, CT	203-378-8211 Ext. 547

D.C.-Maryland (15)

Ms. A. Del Frate Ms. Jane Riddle	Goddard Space Flight Center Greenbelt, MD	301-344-6152
Ms. Laurie Stackpole	NOAA Rockville, MD	301-443-8330
Ms. Linda Dodson	Booz-Allen and Hamilton, Inc. Bethesda, MD	301-951-2786
Ms. Bonita Perry	Johns Hopkins University Baltimore, MD	301-338-8345
Ms. J. E. Lappin Ms. Margaret Bowman Ms. Alvetta Smythe	David W. Taylor Naval Ship R & D Center* Bethesda, MD	202-227-1309 202-227-1433 301-267-2757
Ms. Suzanne Levitas	OAO Corporation Greenbelt, MD	301-345-0750

*New User Since March 1981

Mr. Marc Mayer Mr. Peter Suthard	National Air & Space Museum Washington, D.C.	202-347-1424
Ms. Denise Diggin	DOE Energy Library Washington, D.C.	202-353-2855
Ms. Wilda B. Newman Ms. Linda Kosmin Ms. Mary Brown Mr. Robert Kepple	Applied Physics Lab/Johns Hopkins University Laurel, MD	301-953-7100 Ext. 491
Ms. Carolyn Brown	Executive Office of the President Washington, D.C.	202-395-3654
Ms. Connie Connolly	U.S.D.A. Forest Service* Washington, D.C.	703-235-3111
Ms. Elsie Cerutti	National Bureau of Standards Washington, D.C.	301-921-3451
Ms. Martha Dexter	Office of Technology Assessment Congress of the U.S. Washington, D.C.	202-224-6994
Ms. Martha Brown	White House Information Center Washington, D.C.	202-456-7000
Mr. Walter W. Smith Ms. Merilee Worsey	COMSAT Labs.* Clarksburg, MD	301-428-4512

Florida (6)

Mr. Bill Cooper	NASA JFK Space Center Kennedy Space Center, FL	305-867-3613
Ms. Susan Weiss	E. Systems Inc. St. Petersburg, FL	813-381-2000 Ext. 2182
Ms. Cheryl D. Higham	Embry-Riddle Aeronautical Univ. Daytona Beach, FL	904-252-5561 Ext. 1385
Ms. Mona G. Griffith	Martin Marietta Aerospace Orlando, FL	305-352-2052
Ms. Laura Vollenweider	Reynolds, Smith & Hills Jacksonville, FL	904-396-2011 Ext. 346
Ms. Maureen Corcoran	University of Florida Gainesville, FL	904-392-0853

*New User Since March 1981

Georgia (2)

Ms. Celeste B. Sproul	Georgia Institute of Technology Atlanta, GA	404-894-4528
Mr. Charles K. Bauer	Lockheed -- Georgia Company Marietta, GA	404-424-2928

Indiana (1)

Mr. Mike Goerhing Mr. Frank Bibbons	ARAC/Indiana University Indianapolis, IN	317-264-4644

Kentucky (1)

Mr. Robert F. Jack	University of Kentucky Lexington, KY	606-248-4632

Massachusetts (6)

Ms. Janice F. Bower	MIT Lincoln Laboratory Lexington, MA	617-862-5500 Ext. 7198
Ms. Hope Coffman Ms. Betty Edwards Ms. Caryl Graham Citron	CS Draper Laboratory Cambridge, MA	617-258-3555
Ms. Lynn Fabrizio	Analytic Sciences Corp.* Reading, MA	617-944-6850
Ms. Mary Pensyl	MIT Libraries* Cambridge, MA	617-253-7746
Ms. Kathleen Long	Honeywell Electro-Optics Center Lexington, MA	617-862-6222
Ms. Joyce Rey	Smithsonian Astrophysical Library* Cambridge, MA	617-495-7264

Michigan (1)

Mr. N. S. Brackett	Lear Siegler Inc. Grand Rapids, MI	616-241-7467

New Jersey (3)

Ms. Mary Pfann	RCA Astro-Electronics Princeton, NJ	609-448-3400 Ext. 2247
Ms. Olive Whitehead	RCA Corp. Camden, NJ	609-338-3488

*New User Since March 1981

Mr. Harry Kemp	Federal Aviation Administration* Atlantic, NJ	609-641-8200 Ext. 3132

New York (7)

Ms. Sarah Giddy	Goddard Institute for Space Studies New York, NY	212-678-5612
Ms. Irene Bogolubsky	AIAA TIS New York, NY	212-867-8300 Ext. 36
Mr. David L. Staiger	AIAA-Administration of Publications New York, NY	202-581-4300
Mr. Fred S. Dyer Mr. Francis Schwartz	Rome Air Development Center Griffiss AFB, NY	315-300-2817
Mr. Lester M. Breslauer	Bell Aerospace TEXTRON Buffalo, NY	716-297-1000 Ext. 7011
Ms. Betty Miller	CALSPAN Corp.* Buffalo, NY	716-632-7500 Ext. 5253
Ms. Betsy McIlvaine	Philips Labs. Res. Library* Braircliff Manor, NY	914-762-0300 Ext. 421

Ohio (4)

Ms. Dorothy Morris Mr. John Dunning, Jr.	NASA Lewis Research Center Cleveland, OH	216-433-4000 Ext. 418
Ms. Anne Foreman Ms. Eileen Stephenson	AFWAL/TST Wright-Patterson AFB, OH	513-255-3630
Mr. William L. Buckel	Battelle-Columbus Laboratories Columbus, OH	614-424-6312
Ms. Judith Hecht	University of Dayton Research Inst.* Dayton, OH	513-229-3024

Pennsylvania (6)

Ms. Cindy Mulkerin Mr. Louis Musante Mr. John Hennon	University of Pittsburgh (NIAC) Pittsburgh, PA	412-624-5213
Mr. Larry Chasen Ms. Denise Rich	General Electric Co. Space/Research Libraries Philadelphia, PA	215-962-4700
Ms. Marie Knup Ms. Rose Antipin	United Engineers & Constructors, Inc. Philadelphia, PA	215-422-3000

*New User Since March 1981

Ms. Valerie Tucci Ms. Yvonne Stroh	Air Products & Chemicals, Inc.* Allentown, PA	215-481-7292
Ms. Jean L. Hurd	Honeywell Inc.* Ft. Washington, PA	214-641-3982
Mr. C. G. Murphy	Pennsylvania State University* State College, PA	814-865-6621

Virginia (4)

Ms. Jane Hess Ms. Sue Seward	NASA Langley Research Center Hampton, VA	804-827-2634
Ms. Jane Foster	NASA Wallops Flight Center Wallops Island, VA	804-824-3411
Ms. Carlynn Thompson	DTIC Cameron Station, VA	703-274-7661
Ms. Jo Anne Reid	Mitre Corporation McLean, VA	703-827-6483

*New User Since March 1981

NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

81/11

NOVEMBER 1981

CONTENTS

NASA Policy Governing RECON Access

Several inquiries have been received concerning availability of access to NASA/RECON and dissemination of information received from the system. Access is limited to NASA Centers or installations, NASA contractors, universities with NASA contracts or grants, and other government agencies performing work on projects of interest to NASA. Access is limited to the specific site or location that qualifies for access, and use of the system is intended for support of projects that serve to qualify that site for access. Transmission of citations retrieved on RECON to any organization outside of the United States is expressly forbidden without specific approval of the Scientific and Technical Information Branch, NASA Headquarters.

The Stored Search Feature on NASA/RECON

The Stored Search feature is an exceptionally powerful capability on NASA's online retrieval system. Skillfully employed, the feature will render an SDI service second to none.

All users are reminded that storage exists for each one of them to store up to 50 searches. The number of sets for each stored search cannot exceed 49.

Users who have had some advanced training are more likely to exploit the stored search capability than those who have not had such training. For indoctrination of those who have not experimented with the feature, we recommend that they take advantage of the NASAPUBS profile stored at the Facility on terminal number ID43.

ENTER: Q EXECUTE NASAPUBS(ID43)

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301)-859-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286). Other problems, suggestions, and comments may be directed to Buford Smith or John Wilson (Telephone: (202)-755-3465, NASA Headquarters, Code NST-42, Washington, D. C. 20546).

The Stored Search Feature (Cont.)

and watch the continuous development through 12 sets. The final set, Set 12, means that there is currently a grand total of 1682 SP's (Special Publications), RP's (Reference Publications), and CP's (Conference Publications) in the system (on the primary data base). As mentioned in NASA/RECON User's Bulletin 81/1 for January, these documents represent the cream of NASA's documentation efforts.

Combine the final set (Set 12) with any subject of your choice.

Example: Find a high quality document (SP,RP, or CP) on Lightning Protection of Aircraft

Answer: 78N11024 NASA RP-1008

NASA/RECON Training Plans

Basic Training

The NASA/RECON basic training session planned for December 2 and 3 has been rescheduled for January 19 and 20, 1982.

Advanced Training

A two-day NASA/RECON advanced training session is planned to be held in February or March to serve the users located in the West/Southwest (Texas, New Mexico, Arizona, Utah, and Colorado). Users located in this geographical area are requested to advise Mr. Philip F. Eckert at the Facility, 301-859-5300, if they could attend and what would be the most desirable location. A host site is needed and anyone who will volunteer to be the host will be gratefully appreciated.

Corrections to Listing of RECON Users as of October 27, 1981

Please make the corrections as indicated in the attachment to the listing contained in RECON User's Bulletin 81/10.

L rections to Listing
of RECON Users as of
October 27, 1981 (Cont.)

NORTH CAROLINA

ADD
Mr. Robert Potter — North Carolina Science and Technology Research Center, Research Triangle Park, NC — 919-549-0671, 800-334-8561

NEW YORK

CHANGE FROM
Ms. Irene Bogolubsky — AIAA TIS, New York, NY — 212-867-8300 Ext-36

TO
Ms. Irene Bogolubsky
Ms. Patricia Marshall — AIAA TIS, New York, NY — 212-247-6500

CHANGE FROM
Mr. David L. Staiger — AIAA Administration of Publications, New York, NY — 202-581-4300

TO
Mr. David L. Staiger — AIAA Administration of Publications, New York, NY — 212-581-4300

CALIFORNIA

CHANGE FROM
Dr. Robert Mixer
Mr. Herb Asbury
Ms. Patti Brown
Ms. Becky Jenson — WESRAC - Univ. of So. Cal., Los Angeles, CA — 213-741-7203, 213-741-6132

TO
Dr. Robert Mixer
Mr. Herb Asbury
Ms. Sandra Tung
Mr. Richard Wallace — NIAC - Univ. of So. Cal, Los Angeles, CA — 213-743-7203, 213-743-6132

PENNSYLVANNIA

DELETE
Ms. Jean L. Hurd — Honeywell Inc., Ft. Washington, PA — 214-641-3982

Corrections to Listing
of RECON User's (Cont.)

NEW JERSEY

CHANGE FROM		
Mr. Harry Kemp	Federal Aviation Administration Atlantic City, NJ	609-641-8200 Ext-2125
TO		
Mr. Harry Kemp Dr. Nancy Boylan	Federal Aviation Administration Atlantic City, NJ	609-641-8200 Ext-2125

NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical formation Branch

81/12

DECEMBER 1981

CONTENTS

NASA Thesaurus Online

Many users have inquired when the new edition of the NASA Thesaurus will be published. Some may not realize that the NASA Thesaurus is available online on RECON and is updated daily. Except for the generic structure and the Access Vocabulary the online thesaurus offers all the information that is in the printed Thesaurus plus daily updates.

Access to the online Thesaurus is simple and can be done by either of the following basic commands.

THESAURUS STRUCTURE EXPAND

X TS/Valid thesaurus term

PRIMARY & SECONDARY EXPAND

X Desired term (resulting in an alphabetical display and capability of secondary and further expansion)

(X ST/ May also be used just like primary expand except in File Collections F,I, & M)

THESAURUS STRUCTURE EXPAND

The Thesaurus structure expand command gives direct access to the Thesaurus structure and postings of any valid term. Thesaurus structure expand may not be used in the F File Collection, however, primary expand will default into the LT expansion. To get the Thesaurus structure and postings for books in the F File Collection, X ST/ term must be used. Only the initial term in the expansion is selectable. Postings listed for the first item are for books and subsequent postings are for books and documents

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland. (Telephone: (301)-859-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286). Other problems, suggestions, and comments may be directed to Buford Smith or John Wilson (Telephone: (202)-755-3465, NASA Headquarters, Code NST-42, Washington, D. C. 20546).

'A Thesaurus Online (Cont.)

and cannot be selected from the expansion. To select a Thesaurus term and its postings from the expansion you must use the command X ST/valid term.

You may use X TS/ in A,B,C,D,E,G,H,I,M, and N File Collections.

D and N File Collections

```
ENTER:
X TS/THESAURI
        EXPAND TS/THESAURI
REF     DESCRIPTOR          TP     OCC   TS
R01  -ST/THESAURI----------N        40    5
R02   RT/INDEXES (DOCUMENT
        ATION)-------------N      2436   21
R03   RT/INFORMATION RETRI
        EVAL---------------N      4269   19
R04   RT/TERMINOLOGY------N       310    4
R05   RT/TERMS-------------N        33    2
R06   RT/WORDS (LANGUAGE)-N       475   24

ENTER:
```

Please note X TS/valid term in the N File Collection does not give postings for books; it gives the same expansion that is in the D File Collection. Combined postings for books and documents may be found with a primary and secondary expansion (X term, then X ref. no. or X term, then X ref. no.)

G File Collection

```
ENTER:
X TS/THESAURI
        EXPAND TS/THESAURI
REF     DESCRIPTOR          TP     OCC   TS
R01  -ST/THESAURI----------         0    0
R02   RT/INDEXES (DOCUMENT
        ATION)-------------N        6   21
R03   RT/INFORMATION RETRI
        EVAL---------------B      313   19
R04   RT/TERMINOLOGY------B       92    4
R05   RT/TERMS-------------         0    0
R06   RT/WORDS (LANGUAGE)-N       24   24

ENTER:
```

NOTE: Even though a term is not used in the G File Collection, it is listed in the structure.

SA Thesaurus online (Cont.)

Reference numbers (E01,R01) may be used to further expand the term desired. The descriptor in this case is equivalent to the thesaurus term. (TP) stands for thesaurus type, (N = New, O = Old, B = Both, U = Use). A "New" thesaurus type may be found in either the D file or the G file, and may be expanded for structure in either the D or the G file. An "Old" thesaurus term is found only in the G File Collection and may not be expanded for structure. Many terms listed in the G File Collection are in the singular rather than plural and structures can be found by looking for the terms in the plural. "Both" type terms may be expanded for structure.

PRIMARY & SECONDARY EXPAND

Experience has shown that unless the user is positive that the term is valid, it is best to use the primary and secondary expand. The additional step required in this approach often reveals related terms in the alphabetical expansion and insures the selection of the proper term.

D File Collection

```
ENTER:
X TERMS
      EXPAND ST/TERMS
REF    DESCRIPTOR          TP    OCC  TS  E09  ST/TERNARY SYSTEMS (
E01  ST/TERMINAL VELOCITYN      178   3        DIGITAL)----------U      0   1
E02  ST/TERMINALS--------N       94   7  E10  ST/TERPENES---------N     37   6
E03  ST/TERMINATING------U        0   1  E11  ST/TERPHENYLS-------N     31   1
E04  ST/TERMINATOR LINES-N       96   5  E12  ST/TERRACES (LANDFOR
E05  ST/TERMINOLOGY------N      308   4        MS)---------------N      8  10
E06 -ST/TERMS------------N       33   2  E13  ST/TERRADYNAMICS----N   143   4
E07  ST/TERNARY ALLOYS---N     1373   2  E14  ST/TERRAIN----------N   753   5
E08  ST/TERNARY SYSTEMS--N      674   4  E15  ST/TERRAIN ANALYSIS-N  2456  13

MORE
ENTER:

X E6
      EXPAND ST/TERMS
REF    DESCRIPTOR          TP    OCC  TS
R01 -ST/TERMS------------N       33   2
R02  RT/INFORMATION THEOR
       Y-----------------N     3769  43
R03  RT/THESAURI---------N       40   5

ENTER:
```

NOTE: Terminology might also be looked at even though it is not in the Thesaurus structure for terms.

An almost endless chain of term structures can be revealed by expanding the appropriate reference number of the previous structure. Thus R02 Information theory could be expanded and its references expanded. This technique simulates paging through the printed NASA Thesaurus.

SA Thesaurus
line (Cont.)

OTHER FEATURES

A little used feature of the online thesaurus is the ability to specify term codes. This way the user can get only the part of the structure that is of interest. If you are only interested in related terms simply,

X TS/Term*RT

The following codes may be used,

Narrower term	NT
Broader term	BT
Related term	RT
Used-For	UF
Use	US

The user might also be interested in the number of postings for the major or minor terms. This may be done as follows;

X MJ/TERM

X MN/TERM

If the structure of the term is desired it may be obtained by expanding the E number but it will give postings for both Major and Minor terms not just a structure with Major terms only or Minor terms only.

As mentioned before, Thesaurus structure may be accessed in other files. In file collections A,B,C,E,H, the structures are the same but the postings contain fewer items since these files are part of larger files.

In the ASRDI File Collection (I) the alphabetical display can only be expanded further when there are one or more numbers in the TS column. Most terms without a TS number that are the 0 type are not valid in other files. Only the primary expand command will work and the result is actually to default to the AST/prefix rather than the ST or RT prefix. It is a hybrid Thesaurus display since it contains terms not valid in other files.

In the NALNET Periodicals File Collection (M), X/TERM and X TS/TERM commands will default to the PTX or all text fields. If you want the Periodical Subject Category you must use X PSC/(Subject Category Term). These subject categories are not NASA Thesaurus terms and therefore cannot be expanded for a structure.

SA Thesaurus Online (Cont.)

When the new printed NASA Thesaurus is published in the spring in 1982, it will contain structures for over 20,000 terms and over 150,000 cross references in BT, NT, and RT categories.

Discontinuance of Computer Program Abstracts (CPA)

The quarterly abstract journal Computer Program Abstracts announcing software and documentation from COSMIC has been discontinued. However, items selected by COSMIC will continue to be entered into the RECON data base, and can be searched in the M10K series in File Collection D. An annual catalog is available from COSMIC in microfiche (at 48:1). It is planned to include the catalog on RECON at a later date.

Users looking for computer programs are advised to search the M series with follow-up searches or requests directly to COSMIC at the following address:

COSMIC
Computer Software Management
& Information Center
112 Barrow Hall
University of Georgia
Athens, GA 30602

Telephone (404) 542-3265

Research and Technology Objectives and Plans - FY 1982

RTOP for FY 1982 is undergoing preparation at NASA Headquarters and the Facility while this bulletin is being drafted. The NASA data base will be loaded as the RTOP publication nears completion. Estimated schedule for it looks like this:

- Camera-ready copy to GPO and concomitant loading of STIMS/RECON data base - April 1982
- Delivery of production copies to NTIS for sale to the public with advertising contained in several issues of the Commerce Business Daily - April 1982
- Announcement in STAR - April or May 1982

The annual RTOP is extremely useful for locating brief descriptions of and trends in NASA research. The NASA Scientific and Technical Information Branch at NASA Headquarters has recognized the publication's importance by including a one-page special notice in the front matter of the STAR issue that contains the abstract and citation for the RTOP.

Research and Technology Objectives and Plans - FY 1982 (Cont.)	Those users who are unfamiliar with RTOP's are advised to peruse N81-19959 on page 1422 of STAR 10; or simply display N81-19959. (NOTE: RTOP is the acronym for Research and Technology Objectives and Plans.)
Holiday Greetings	The Scientific and Technical Information Branch at NASA Headquarters joins the NASA Scientific and Technical Facility in extending holiday greetings to the NASA User Community.

1982

NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

82/1

JANUARY 1982

CONTENTS

NASA/RECON Advanced Training Plans

Advanced training workshops will be held in the Mountain Time Zone area as follows:

March 22-23, 1982 (Mon. & Tues.)

University of Denver
Penrose Library
University Park
Denver, CO 80208

Denver Univ. Contact is
Ms. Patricia Fischer or
Ms. Salleye Smith
303-753-2422

The Denver sessions are intended principally for the 7 Colorado users, 2 Oklahoma users, and one Missouri user. Others may attend on a space available basis.

March 24-25, 1982 (Wed. & Thurs.)

University of Arizona
Main Library
Tucson, AZ 85721

Arizona Univ. Contact is
Mr. Douglas Jones
602-626-5193

The Tucson sessions are intended principally for the 2 Arizona users, 3 Utah users, 3 New Mexico, and one or two users from California and Washington. Others may attend on a space available basis.

Organizations planning to send one or more representatives to these workshops are requested to inform Mr. Philip F. Eckert at the Facility of their plans (301-859-5300, ext. 363 or 374).

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301)-859-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286). Other problems, suggestions, and comments may be directed to Buford Smith or John Wilson (Telephone: (202)-755-3465, NASA Headquarters, Code NST-42, Washington, D. C. 20546).

NTIS Price Changes

The minimum prices at NTIS are now $6.00 per hard copy of 25 pages or less and $4.00 per microfiche. Consult the front matter of 1982 copies of STAR or NTIS publications for detailed price schedules.

Index for 1981 RECON User's Bulletin

The Index for NASA/RECON User's Bulletin 81/1 through 81/12 is forwarded as a separate entity with this bulletin.

January - December 1981
81/1 through 81/12

NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

82/2

FEBRUARY 1982

CONTENTS PAGE

The Display Order of RECON Accessions

In 1970, when the NASA data base was relatively small and some four years before the data base was split into the Prime (Primary) and Alternate Data Bases (1974), the sort order by Accession Series for displaying and printing was developed by the RECON system designers. The original sequencing of accessions, in descending accession number order by series, carried over into the Primary and Alternate Data Bases as shown below.

Primary Data Base (1968 to date, except for B10K)

K10K	K10000	R&D Contract Search File
B10K	B10000	Tech Briefs (All, 1963 to date)
M10K	M10000	Computer Program Abstracts
X70K	X70000	Limited or Classified Accessions of Limited Significance
X10K	X10000	Limited or Classified Accessions in LSTAR
W70K	W70000	RTOP's
A10K	A10000	International Aerospace Abstracts
N70K	N70000	Unclassified/Unlimited Accessions of Limited Significance
N10K	N10000	STAR

NOTE: IAA and STAR accessions are displayed or printed third from last and last, respectively.

```
DISPLAY 99/1/1-9
81K10500  78B10050  80M10001  77X70500  80X10012  80W70400  79A12000  81N71000
78N10005
```

Accession Series Order of Display
-Primary Data Base-

The Display Order of RECON Accessions (Cont.)

Alternate Data Base (1962-1967, except for X90K and N40K)

X90K	X90000	Limited or Classified Accessions for Record only (All, 1963 to date)
N90K	N90000	Unclassified or Unlimited Accessions for Record only (All, 1963 to date)
X80K	X80000	Limited or Classified Accessions of Limited Significance
X10K	X10000	Limited or Classified Accessions in CSTAR
W10K	W10000	Research Resumes - predecessor of RTOP's
A10K	A10000	International Aerospace Abstracts
N70K	N70000	Unclassified GAP - NASA SP-9
N60K	N60000	Unclassified GAP - NASA SP-9
N80K	N80000	Unclassified and Unlimited Accessions of Limited Significance
N10K	N10000	STAR

DISPLAY 99/1/1-9
80X90001 81N90002 66X80500 65X10001 70W10005 64A10007 62N63902 67N80001
66N10001

Accession Series Order of Display
-Alternate Data Base-

In both data bases, IAA and STAR accessions are displayed and printed near the end of the display or printed output.

The user can easily overcome the "lateness" of displaying IAA and STAR accessions by use of the limit command.

Assume that Set 10 contains several series - the user can limit Set 10 in several ways in order to have the IAA and STAR Accessions displayed or printed before the other accessions.

First

L 10//A,N

or

Second

L 10//A followed by

L 10//N/10001-35000

Reiterating, there are several methods the user can employ to have the STAR and IAA material display early. One method that should not be overlooked is to select File Collection A, which contains only IAA and STAR.

The K,B,X,W, and other non-A and non-N accessions can be searched or selected by use of the limit command or the NOT Command.

NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

82/3

MARCH 1982

CONTENTS

New RECON Equipment

As of the last week of February, RECON has been operating in a production environment on two relatively new pieces of equipment at the Facility, namely, the IBM-4341 computer, utilizing the MVS (Multiple Virtual Storage) operating system, and the COMTEM 3690 Front End Processor. Prior to this date, RECON had run on the IBM-360/65, under the MVT (Multiprogramming Variable Tasks) operating system and communications were handled by the TELEFILE Front End Processor. The conversion effort was initiated in the spring of 1981 to upgrade RECON to the current state-of-the-art, employ more reliable hardware, free its dependency from an operating system (MVT) no longer supported by the vendor, and enable RECON to take advantage of faster I/O devices and faster channel speed. The conversion effort was a major software development task, largely concentrated on the communications interface the terminal user has with RECON.

With the new hardware and software operational, we fully anticipate more reliability and increased availability of RECON service to the user community. We also expect a few problems to crop up in the next few months until the program anomalies have surfaced and been resolved. We therefore ask your indulgence and cooperation in assisting us by notifying the RECON Coordinator if you notice any problems.

The Art of Procuring Documents for NASA Users

The title of this article could be expanded to include all users throughout the world. In the quest for information we usually locate initially the references to the articles, documents or books that we need for our professions or for enjoyment. NASA/RECON, STAR, IAA, SCAN and other information dispensers provide us with surrogates - substitutes for the articles, documents we desire to skim, read, or extract from.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland. (Telephone: (301)-859-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286). Other problems, suggestions, and comments may be directed to Buford Smith or John Wilson (Telephone: (202)-755-3465, NASA Headquarters, Code NST-42, Washington, D. C. 20546).

1. Art of Procuring Documents (Cont.)

NASA services, particularly RECON, provide good leads to the hard-core material we need. The procuring of documents or books is an art in itself, and the art can be most readily executed by the resident experts. An engineer in Lab X who has never heard of NTIS, ESA, IAA, a PB or an AD number would be wasting his time in trying to obtain a document or documents on his own. He or she should make known his or her needs at the central service point (usually a library or tech information center) and let the experts obtain the required materials.

Admittedly, there will always be problems. How many times have we heard this type of request? We need a document on lasers, written by an author by the name of Smith, around 1966-1969.... (The British classify this type as an "awkward request"). But given an accession number, part of a title, or a good author, the expert is off to a fast start.

The NASA series designations were developed to assist the information dispensers or brokers and the bench users. Let us review some of the highlights:

- o N means publicly available, e.g., N82-10001.
- o X means a distribution limitation or a security-classified limitation, e.g., X81-10002.
- o A means an "open" literature item, (journal or periodical), announced in International Aerospace Abstracts (IAA), e.g., A80-12345.

The general ground rule is that almost all N items are available for purchase through NTIS (National Technical Information Service in Springfield, Virginia); and almost all A items are available for purchase through the Technical Information Service of AIAA in New York. NTIS and AIAA are staffed to process large volumes of requests and to handle cash whereas some agencies cannot.

The expert document procurer knows immediately that the prefix AD connotes a DoD document; that PB (an abbreviation for 'Publication Board', dating back some 30 years) means that the document was processed at NTIS for agencies other than DoD or NASA.

Nothing is more frustrating to the procurer and user than to wind up with the wrong document. To reduce the number of mis-orders, NTIS instituted the "check digit" concept in 1975. For example, PB-201149 is listed by NTIS as PB-201149/1. The 1 after the slash is the check digit and is derived by an algorithm based on the six preceding digits.

If in the ordering process the last two digits, 49, had been transposed to 94, the check digit most likely would not have been a 1. If the transposition had occurred NTIS would have returned the order to the requesting agency for verification. In other

h rt of Procuring ocuments (Cont.)

words, the use of check digits has reduced significantly the mis-ordering of documents, and in some cases, books.

For data validation purposes, the International Standard Book Number (ISBN) is a number that identifies one title or edition of that title if there is more than one. The construction of the ISBN is explained in British Standard BS 4762:1971. The check digit issued for verification to ensure against errors in transcription. Its calculation is interesting and simple:

A. Each digit in the group is multiplied by a "weight." The first is multiplied by 10, the second by 9, the third by 8, etc.

For example: (Carl Sagan's COSMOS - the ISBN is 0-394-50294-9)

0	-	3	9	4	-	5	0	2	9	4	....ISBN
10		9	8	7		6	5	4	3	2	....weights

B. 0 +27+72+28 +30+ 0 +8+27 +8 = 200 (sum)

C. Result is divided by 11

200 ÷ 11 = 18 with a remainder of 2

D. The remainder is subtracted from 11

11 - 2 = 9 (the check digit)

If the result of subtracting the remainder from 11 is 10, the check digit is written as X in order to maintain the ISBN at a standard length of ten digits.

E. The check digit becomes the suffix to the other nine digits, e.g., ISBN 0-394-50294-9

Summarizing, plead with and encourage your users to submit their document requirements to their central service point. The experts there know how to procure the wanted documents. Some of the requested material may be in hardcopy or microfiche locally, thus obviating the need for telephone or written requests or purchase orders. Let your clientele know that procurement of documents and books, many of them out of print or resting in archives, is an art unto itself, with the best experts at the center service point.

ASA/RECON Basic raining

The next NASA/RECON Basic Training Workshop will be held at the Facility on May 18 and 19 provided a quorum of between 7 and 10 users can be assembled. All users who are interested are requested to inform Mr. Philip F. Eckert at the Facility of their plans for the May training sessions (301-859-5300, Ext. 363 or 374).

NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

82/4

APRIL 1982

CONTENTS

NASA/RECON User's Command Guide for NALNET

Five copies of a command guide for NALNET (NASA Library Network) are forwarded with this bulletin. Copies of a phototyypeset, improved version will be distributed to the field within the next 45 days...probably with the June RECON User's Bulletin.

NASA/RECON Advanced Training

Two two-day RECON advanced training sessions were held in the Mountain Time Zone areas as follows:

Denver, Colorado

- March 22-23, at the University of Denver for 21 employees representing the University of Denver, University of Colorado (Boulder), Colorado State University (Ft. Collins), National Center for Atmospheric Research (Boulder), USAF Academy (Colorado Springs), NOAA (Boulder), Martin Marietta Aerospace (Denver), NSRL (Bay St. Louis, MS), Hercules Inc., (Magna, UT), Thiokol (Brigham City, UT), and the Pacific Northwest Laboratories (Richland, WA).

Tucson, Arizona

- March 24-25, at the University of Arizona for 14 employees representing the University of Arizona, Arizona State University, Kirtland Air Force Base, (NM), White Sands Test Facility (NM), California Institute of Technology (Pasadena, CA), USAF School of Aerospace Medicine (Brooks Air Force Base, TX), Vandenberg Air Force Base (CA), and General Dynamics (San Diego, CA).

NASA/RECON Advanced Training (CONT.)

The training was received with enthusiasm in both cities. Many of the trainees praised the versatility of NASA/RECON and considered the Frequency Command and Stored Search capability an outstanding addition.

NASA Headquarters and the Facility again wish to express their appreciation to Ms. Salleye Smith of the University of Denver and Mr. Douglas Jones of the University of Arizona for their able and efficient hosting of the RECON briefing and training sessions.

NACA Annual Reports

The Facility's collection of NACA Annual Reports (Technical Report Versions) is 59 percent complete. Offers from RECON Users who have spare copies of the following annual reports will be gratefully accepted.

NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS
(With Technical Reports)

1918 Fourth Annual Report
1919 Fifth Annual Report
1920 Sixth Annual Report
1921 Seventh Annual Report
1922 Eighth Annual Report
1923 Ninth Annual Report
1925 Eleventh Annual Report
1926 Twelfth Annual Report
1927 Thirteenth Annual Report
1928 Fourteenth Annual Report
1931 Eighteenth Annual Report
1932 Nineteenth Annual Report
1933 Twentieth Annual Report
1934 Twenty-first Annual Report
1935 Twenty-second Annual Report
1936 Twenty-third Annual Report
1950 Thirty-sixth Annual Report
1954 Fortieth Annual Report

NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

32/5

MAY 1982

CONTENTS

New HELP Data

Listings of searchable fields with mnemonics for each NASA File Collection are now available for display. Enter HELP and transmit. A list of RECON commands will appear for which an explanation is available. Among these are the " SEARCH COLL- " commands for each NASA File Collection. An example follows:

```
ENTER:HELP SEARCH COLL-A
   EXPLANATORY TEXT FOR X005
SEARCHABLE FIELD MNEMONICS FOR FILE COLLECTION 1 OR A (IAA AND STAR FILES)

TEXT SEARCHABLE FIELDS          IAA  STAR   NONTEXT SEARCHABLE FIELDS   IAA  STAR

  TEXT FIELDS*          (S)   TX   TX       DCAF NUMBER               DC   DC
    ABSTRACT            (SM)  AX   AX       REPORT NUMBER             RN   RN
    ANALYTICAL ITEM     (SM)  AI   AI       PERSONAL AUTHOR           AU   AU
    ANALYTICAL NOTE     (SM)  AL   AL       CONTRACT NUMBER           CN   CN
    DATA SUMMARY        (SM)  DS   DS       CORPORATE SOURCE          CO   CO
    USE STATEMENT       (SM)  SU   SU       SUBJECT TERMS***          ST   ST
  ALL TITLE FIELDS**    (S)   ATL  ATL        MAJOR TERMS             MJ   MJ
    UNCLASSIFIED TITLE  (SM)  UTP  UTP        MINOR TERMS             MN   MN
    TITLE SUPPLEMENT    (SM)  TSP  TSP        DATA TERMS              DT   DT
    TITLE EXTENSION     (SM)  TEP  TEP
    NOTATION OF CONTENT (SM)  NOC  NOC

  (S):  A SINGLE WORD PARAMETER MUST BE USED WITH THE MNEMONIC.
 (SM):  A SINGLE OR MULTIPLE WORD PARAMETER CAN BE USED WITH THE MNEMONIC.
        MULTIPLE WORDS CAN BE EITHER PHRASE OR PROXIMITY TYPE ENTRIES.
   *TX   INCLUDES ALL FIELDS UNDER TEXT FIELDS.
  **ATL  INCLUDES ALL FIELDS UNDER ALL TITLE FIELDS.
 ***ST   INCLUDES ALL FIELDS UNDER SUBJECT TERMS.
ENTER:
```

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301)-859-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286). Other problems, suggestions, and comments may be directed to Buford Smith or John Wilson (Telephone: (202)-755-3465, NASA Headquarters, Code NST-42, Washington, D. C. 20546).

;A/RECON Basic Training

A two-day RECON basic training workshop was held at the Facility on May 18 and 19 for 21 employees representing the following organizations:

Goddard Institute of Space Studies	New York, NY
NASA Headquarters	Washington, D.C.
Naval Surface Weapons Center	Dahlgren, VA
Naval Surface Weapons Center	White Oak, MD
USAF Space Division	Los Angeles, CA
USAF Western Space & Missle Center	Vandenberg AFB, CA
USAF Institute of Technology	Wright-Patterson AFB, OH
Pennsylvania State University	College Station, PA
AVCO Lycoming Division	Stratford, CT
NASA Facility	BWI Airport, MD

Future training sessions will be announced in the RECON User's Bulletins. At the moment there are no plans for the conducting of training in June or July.

National Aeronautics and Space Administration

Scientific and Technical Information Branch

RECON User's Bulletin

82/6

JUNE 1982

CONTENTS

The QUERY Command

The QUERY Command technology was developed as a stored search sequence capability that allows the user to create and save permanently the command sequences, and, subsequently, to initiate execution of the stored sequence. Each dedicated and dial-in terminal has the capacity for storing up to 50 unique searched or profiles.

The QUERY technology was not developed as a communications (Message Sending/Electronic Mail) medium between NASA Centers or other organizations. To do so is a misuse of resources allocated to the RECON network and can degrade responsiveness of the system. Effective upon receipt of this bulletin, all users are requested to limit use of RECON, specifically, the stored search or QUERY technology, to that purpose for which it is designed.

New UTS-400 Features

Four new features have been added to the RECON for use on the UTS-400. These are RECALL, REPEAT, TAB and QUERY (subcommand expansions).

RECALL. Depressing the space bar when the cursor is at the beginning of the command line causes the previously transmitted command to be displayed on the command line. It can then be transmitted again, changed and transmitted, noted, or ignored. The command line does not have to be erased to perform this function. In addition to corrections and changes, this enhancement is also useful when the previously transmitted command differs slightly from the next command to be transmitted. Recalling the previous command and changing the appropriate part is often faster than typing the whole command again.

CON operational problems may be directed to the RECON ordinator at the NASA Scientific and Technical Information ility in Baltimore, Maryland. (Telephone: (301)-859-5300 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286). Other problems, suggestions, and comments may be directed to Buford Smith or John Wilson (Telephone: (202)-755-3465, NASA Headquarters, Code NST-42, Washington, D C 20546)

REPEAT. The REPEAT command function recalls the last command transmitted, as described above, and automatically retransmits it. The XFER key, second key from the right end of the second row, is used for this function. This has been found to be particularly useful for retransmitting the "DISPLAY" or "DISPLAY-" commands since only one key need be depressed for each display request.

TAB. The TAB BACK and TAB FWD keys to the left and right of the space bar can be used to move the cursor left and right, respectively, twelve spaces at a time during the typing of RECON commands. Previously, these commands and the CURSOR TO HOME and RETURN keys returned the cursor to the beginning of the command line. This enhancement speeds up the positioning of the cursor when making corrections to changes to a command. The use of the tab keys while filling out the begin or end search forms are not affected by this enhancement.

QUERY. The abbreviations for the QUERY subcommands have been combined with the abbreviations for QUERY (i.e. Q) for forming several new abbreviations that are automatically expanded by the UTS-400 in the same manner as all other RECON commands. The letter Q is no longer expanded to the word QUERY. The rule for forming the new abbreviations is to type the letter "Q" followed immediately by the first two letters of the subcommand. For example, the abbreviations for QUERY EDIT would be QED. For convenience and when possible, some QUERY commands can be expanded by typing only two letters -- a "Q" followed by the first letter of the subcommand. These are QA for QUERY ALTER, AL for QUERY LIST, QM for QUERY MEMBER, QQ for QUERY QUIT, QR for QUERY REPLACE, and QS for QUERY SAVE. The space bar must be depressed prior to transmitting in order to expand the abbreviations. Whether a two- or three-letter abbreviation is required, you can always try typing two letters and if it is not valid the UTS-400 will detect it. Just backspace and type the appropriate third letter followed by a space. You may prefer using the three-letter version all the time since this will always generate an expanded version.

The above enhancements will be available for downline loading on July 1, 1982. All one needs to do is type LOAD and hit the XMIT key on the primary or master terminal station. A "LOAD INITIATED...PLEASE WAIT FOR COMPLETION" message should appear at the bottom of the screen. Shortly thereafter, a "RECON MODE ACTIVE" message should appear at the bottom of the screen and a "*****LOAD COMPLETED...CONTINUE PROCESSING*****" message should appear at the top of the screen. If, instead of these two messages an "ERROR IN REQUESTED LOAD" message appears at the top of the screen, you might not be at a primary or master terminal. Try another terminal. If all the terminals in your UTS-400 cluster produce negative results, contact the RECON coordinator for assistance.

TS-400 Features
n Progress

The next UTS-400 enhancement release will provide the operator with the ability to:

(1) type two or more commands before transmitting,
(2) create and store command sequences (i.e., one or more commands) in local memory,
(3) transmit locally stores command sequences,
(4) create and edit stored searches (i.e., queries) using the word processing features of the UTS-400,
(5) select a SPECIFY FORMAT 4 mode

National Aeronautics and Space Administration

Scientific and Technical Information Branch

RECON User's Bulletin

32/7

JULY 1982

CONTENTS

Monthly UPDATE for NASA R&D Contracts

An experimental project is being developed and tested to provide monthly UPDATES for new NASA R&D contracts. Thus, Principal Investigators (PI) would be supplied with the latest references in the area of the contract. The UPDATES may be sent directly to the PI or through the library. For the immediate future, the tests conducted by the Facility will be limited to selected 1982 K-file accessions covering new contracts issued by NASA Headquarters, Langley, and Ames.

If other Centers wish to participate, follow this procedure. Obtain your Center listing of 1982 K accessions from the Facility. Prepare profiles for selected contracts using the QUERY command and store them on RECON. Upon completion, inform the Information Services Department in writing at the Facility (or call Ext. 232) that your Center wants the profiles or queries (by name) processed on a monthly basis. Profiling assistance is available at any time from the Facility from Hal Wynne, Edna Fleek, June Silvester, Bill Owens or Phil Eckert.

Similarly, contractors with RECON access may develop their own profiles using the QUERY command procedures. The profiling assistance mentioned in the foregoing paragraph is also available to all contractor users. The auxiliary monthly profile entitled STOREMAY, STOREJUN, STOREJUL, etc., which limits each profile to the monthly accessions, is normally ready for use by the fifth of each month. Its application to field user profiles will be readily explained to all interested contractor users upon request. All contractors will be responsible for processing their monthly UPDATES.

New High Density Technology Storage (IBM-3380 DASD)

The NASA STI Facility recently completed an upgrade to its Direct Access Storage Devices (DASD) that contain the RECON/STIM data base files. This storage represents the very latest in thin-film,

high-density storage technology. In February of 1982, the Facility initiated an acquisition plan for procurement of two IBM-3380 DASD units and one IBM-3380 Storage Control Unit. The new equipment was installed on June 14, and contains approximately 5 billion bytes of storage. The 3380's replaced eight IBM-2314's and six 3330's and resulted in a net increase of 2.2 billion bytes over the previous configuration. The total storage at the Facility is now 9.0 billion bytes.

The new storage configuration has resulted in an overall increase of random access storage, increased performance characteristics, a 44 percent reduction in electrical power for operation, a 59 percent reduction in power consumption for air conditioning and a net reduction of floor space requirements by 100 square feet. The STI Facility is one of the first NASA sites to acquire the IBM-3380's and in fact their acquisition required a waiver from the Department of Commerce as the 3380's have not yet been adopted in the National Bureau of Standards ADP standards.

ASA STI Facility
ost to NHCC

The NASA STI Facility is currently playing host to the NASA Headquarters Computer Center (NHCC).

Rehabilitation of air conditioning at the NHCC necessitated relocating most of the ADP equipment to a different site for approximately 3 months. The NASA STI Facility was chosen as the most cost effective practical location and the equipment was moved on July 16.

Everyone involved was committed to accomplishing this task without impact to the STI products and services especially online access to NASA/RECON. We were successful.

ASA Headquarters
eorganization

You have probably heard about the recent NASA Headquarters reorganization. We are certain you will be happy to know that the integrity of the STI program was maintained and no impact on STI products or services is expected. The STI Branch was reassigned intact to the new Logistics Management and Information Programs Division headed by Lawrence W. Vogel. Colonel Vogel's long association with the space program and his interest in scientific and technical information foretells a vibrant and cost effective information dissemination program.

Louis N. Lushina, previously Director of the Information Systems Division of which the STIB was a part, has been appointed to the position of Assistant Associate Administrator for Management. Mr. Lushina's continued dedication and support of the NASA STI program is assured.

NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

82/8

AUGUST 1982

CONTENTS

1200 Baud TTY Support

The highly recommended capability of 1200 baud access for NASA RECON dial-in users is now a reality. By dialing 301-621-2950 direct, you may now access RECON with 300 or 1200 baud modems that are Bell 103, 113, or 212 compatible. The 621-2950 rotary will automatically adjust to a user coming in on 300 or 1200 baud. This means that in addition to supporting our 300 baud users in the normal manner, users that have a Bell 212 compatible modem may now access RECON at 1200 baud using the same telephone number.

For Racal Vadic 34XX series (with 1200 baud modems), RECON can be accessed by dialing 301-621-2958.

Telenet users now have 1200 baud support. To access Telenet at 1200 baud, dial the Telenet Bell 1200 number or Vadic 1200 number, whichever is closer to your city.

Revision of SP-449

The special publication entitled "A Catalog of NASA Special Publications" is undergoing revision. The new edition will include SP's (Special Publications), CP's (Conference Publications) and RP (Reference Publications) that have been added to the NASA data base since June 1981. The revised edition, scheduled to be published this fall, will contain about 1,400 entries, and will be indexed using the 75 subject categories of STAR, NASA's abstract journal.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301)-859-5300 ext. 286) or Washington, D. C. (Telephone. (202)-621-1910 ext 286) Other problems, suggestions and comments may be directed to Buford Smith or John Wilson (Telephone (202)-755-3465, NASA Headquarters, Code NIT 42, Washington, D C 20546)

Purging of Unused Stored Searches

Users who have created stored searches that have served their purpose or are no longer used are encouraged to purge them from their reserved spaces.

NASA/RECON Basic Training

NASA/RECON Basic Training sessions (2 days) will be scheduled at the Facility on October 25 and 26 (Monday and Tuesday) if sufficient interest is shown. These two days are immediately before the DTIC Annual Users Conference in Alexandria and three calendar days after the annual ASIS meeting, scheduled this year in Columbus, Ohio.

Please communicate your intentions to Mr. Philip F. Eckert, Manager, Information Services Department at the Facility, 301-859-5300, X374.

NASA/RECON Advanced Training

A two-day NASA/RECON Advanced Training session is planned to be held for users in the South or the Southeast in mid-December. Users located in this geographical area are requested to advise Mr. Philip F. Eckert (301-859-5300, X374) if they could attend and what would be the most desirable location. A host site is needed and anyone who will volunteer to be the host will be greatly appreciated.

NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

82/9
SEPTEMBER 1982

CONTENTS

NASA Thesaurus

The two-volume 1982 edition of the NASA Thesaurus will be available from NASA and NTIS in November as NASA SP-7051. Volume 1, the Hierarchical Listing, consists of 840 pages - listing over 20,000 terms and cross references and their hierarchies, totalling over 155,000 entries. The detail of the hierarchies is easily illustrated by the term SATELLITES, which has some 500 Broader, Narrower, and Related terms.

Volume 2, the Access Vocabulary, consisting of some 40,000 entries, is a unique tool providing access to any word including numeric "words" in the term by utilizing a permuted index. In addition to the regular permutations that are computer generated, intellectually identified "words" that contain "word" or "words" within the word are made accessible through manual coding. Other word entries such as chemical abbreviations and abbreviation of states are also included.

Users registered with NASA for either STAR, Aerospace Medicine and Biology, or Aeronautical Engineering, or RECON publications will receive copies by automatic distribution. All online RECON users will also receive copies by automatic distribution.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone (301)-859-5300 ext. 286) or Washington, D. C. (Telephone (202)-621-1910 ext 286) Other problems, suggestions and comments may be directed to Buford Smith or John Wilson (Telephone (202)-755-3465, NASA Headquarters, Code NIT 42, Washington, D C 20546)

SuDocs Classification Numbers - A Cautionary Note

Commencing in STAR 11 last June, the SuDocs Classification Numbers have been included in the citations for NASA-sponsored documents. Listed below are five samples of these numbers. Note the lack of hyphens after NAS, the appearance of a colon before a group of three to six digits...and the matching of these digits with the NASA report number.

```
ENTER:
D 3/4
        DISPLAY 03/4/1-5 OF 5
     82N21118   81/00/00   RPT#: NASA-SP-453 NAS 1.21:453 LC-81-600116
     82N20494   82/03/00   RPT#: NASA-CP-2220 NAS 1.55:2220
     82N20226   73/04/00   RPT#: NASA-CR-161227 NAS 1.26:161227
     82N20238   82/03/00   RPT#: NASA-TP-1998 NAS 1.60:1998 M-376
     82N20197   82/02/00   RPT#: NASA-TM-84214 A-8824 NAS 1.15:84214
```

Do not attempt to SELECT a document with the SELECT command using the SuDocs number. The colon will treat your SELECT command as a "root" search. Again, always EXPAND the SuDocs number and SELECT the E reference.

NASA/RECON Training Plans

Basic Training

Basic NASA/RECON training will be held at the Facility on October 25 and 26. It is not too late to sign up for this training.

Advanced Training

The Marshall Space Flight Center and Redstone have kindly offered to co-host NASA/RECON Advanced Training on December 7 and 8, 1982. Please communicate your plans to Mr. Philip F. Eckert at the Facility, (301) 859-5300, Ext. 374. For hotel recommendations in Huntsville, consult Ms. Annette Tingle at Marshall, (205) 453-1880 or Ms. Nancy Stilson at Redstone, (205) 876-5181.

Enhanced Display Capability

On September 30, the display capability for a single DISPLAY command was expanded from 10 lines to 23 lines. This expansion means that a single citation and abstract (Format 2) will be displayed with fewer commands. For example, a record containing 40 lines will now display with the DISPLAY command and one PAGEing. Heretofore, three PAGEing commands were required.

NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

82/10

OCTOBER 1982

CONTENTS

NASA Lexical Dictionary

Building on the machine-aided indexing procedures developed at DTIC, work is under way to create a NASA lexical dictionary capable of automatically switching DTIC subject terms to NASA terms. The idea is to switch terms that are already on magnetic tape by computer methods. Pilot tests have indicated that the system will automatically supply appropriate NASA terms for DTIC terms. Non-matching terms will be reviewed by the indexers and intellectually switched to appropriate NASA terms for insertion in the lexical dictionary. Potential to serve as a building block for multidatabase subject switching is evident. A long-range goal of the NASA lexical dictionary is to achieve subject switching of other machine-readable data bases whose records may be candidates for the NASA data base.

Charge for NASA Literature Serarches

In 1983 NASA will discontinue the free search service that has been provided by the NASA STI Facility. Beginning January 3, a charge of $80.00 will be made for each search performed by the Facility, other than those made for NASA installations or universities. Billing procedures are currently in preparation.

Field RECON users will not be affected by this change except for those RECON users that have also utilized the free NASA literature search service. Those users can probably expect greater use of their NASA/RECON Dial-In capability than heretofore.

NASA Tech Briefs

NASA Tech Briefs up to and including Vol. 5, No. 4 (Winter 1980) are available on RECON displaying title, author, NASA Center case number, and B-number.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301)-859-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext 286) Other problems, suggestions, and comments may be directed to Buford Smith or John Wilson (Telephone (202)-755-3465, NASA Headquarters, Code NIT 42, Washington, D C 20546)

NASA Tech Briefs (cont'd)

The adding of 1981 and 1982 Tech Briefs to the NASA data base is in process. By mid-November, the Spring 1981 subset will be available on RECON. The remainder of the 1981 and all of the 1982 Tech Briefs will be processed in the data base in early 1983.

Type Command

A Type Command (T) has been reinstated for all TTY Type terminals. Currently, the Type Command is limited to a single citation including the indexing and the abstract. You will be notified when it is expanded.

NASA/RECON Training

Advanced NASA/RECON training will be held at Marshall/Redstone on December 7-8, 1982. It is not too late to sign up for this training. For further details, see NASA/RECON Bulletin 82/9, September 1982.

Basic NASA/RECON training was held at the Facility on October 25-26 for 33 attendees representing 21 organizations, including 3 government agencies.

NASA
National Aeronautics and Space Administration

Scientific and Technical Information Branch

RECON User's Bulletin

82/11
NOVEMBER 1982

CONTENTS

NASA Facility Computer Upgrade

By now all RECON users should have noted the increased rapidity of the responses to their RECON commands. Well, there is a reason for it! In late October the Facility mainframe computer, the IBM-4341, was upgraded from a Group 1 to a Group 2 installation. The upgrade was from 0.8 MIPS (Million Instructions Per Second) to 1.2 MIPS for CPU processing and from 4 Mbytes to 8 Mbytes of memory resulting in a substantial throughput improvement.

The week of November 1-5 was a recordbreaker for RECON - a new weekly high of 66,633 commands was processed including a new daily high of 15,276 commands. Because of the computer upgrade, the system's responsiveness was excellent despite the heavy activity.

1982 COSMIC Catalog

In late October the entire CPA (Computer Program Abstracts) file (many entries were obsolete) was purged from the STIMS Data Base and replaced by the current COSMIC Catalog of computer program summaries. The new input consists of 1,264 citations and abstracts ranging from 82M10001 through 82M11264. The new M accessions are similar in format to the purged accessions.

Page G-2 of Appendix G of the RECON User's Manual should be changed to read:

Coverage	Subject Indexing MJS	Subject Indexing MNS	Text Indexing	Text Search
1982 - Present	Yes	No	Yes	Yes

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone (301)-859-5300 ext. 286) or Washington, D C. (Telephone (202)-621-1910 ext 286) Other problems, suggestions and comments may be directed to Buford Smith or John Wilson (Telephone (202)-755-3465, NASA Headquarters, Code NIT 42 Washington D C 20546)

1982 COSMIC Catalog (cont'd)

Both the titles and abstracts are text searchable using the standard title (ATL,UTP) or abstract (TX,AX) mnemonics.

Field users may scan or print a portion of the catalog locally; or they may print the whole catalog by executing the stored search COSMIC82 by employment of the Query Command.

```
First      Begin Search
Second  -  LA 82/M
Third      Q EXECUTE COSMIC82(ID43)
```

You may examine the stored query by employing these two commands:

```
Q DISPLAY COSMIC82(ID43)
Q DISPLAY COSMIC82/23-25(ID43)
```

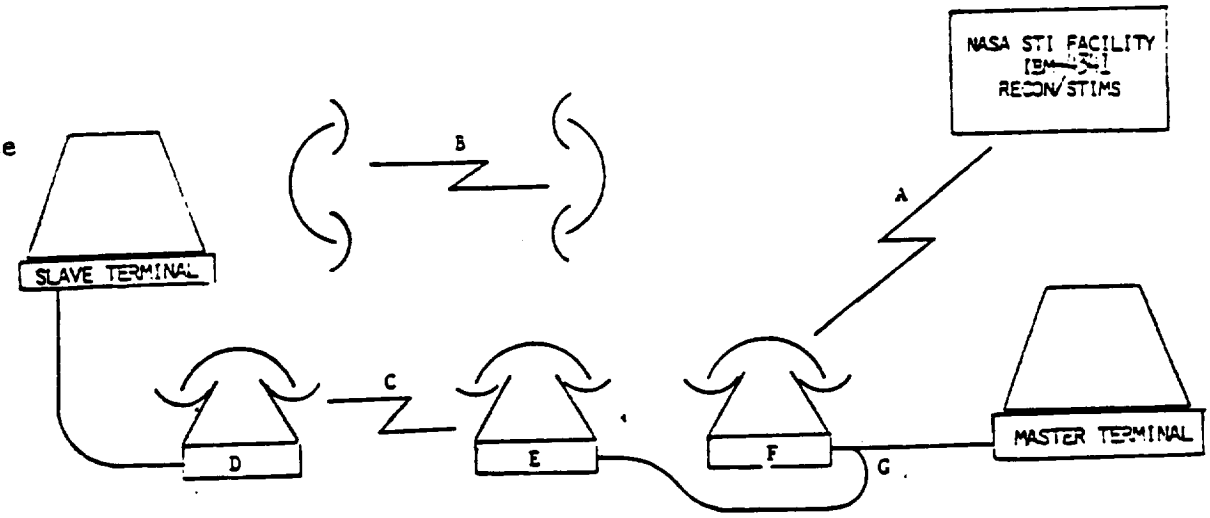
Online Search Tele-Conference Service - by Carol Sterkin - JPL

Several months ago the Online Database Center of the JPL Library inaugurated an online search teleconference service. The service enables the requester to monitor the course of a search (on the nearest dial-up terminal) as it is performed by the searcher in the Library. The requester participates via telephone, by providing feedback on the relevance of the references displayed. Search results can then be printed out, if desired, at the requester's terminal.

There are several advantages to the teleconference service. Instant information can be provided to search requesters at any location, however remote from the Library, and it is as near as the nearest (dial-up) terminal. (A search can even be performed for an individual while on travel). The requester can participate in the course of the search without leaving his office or other location. By printing the information online at the requester's location, in-house mail delays are avoided. Also, the service is cost-effective both from the standpoint of library personnel and from the standpoint of time saved by requesters.

Only a modest expense was incurred to provide this service, the cost of an additional modemphone located near the dial-up terminal of the Online Database Center. An additional telephone was also provided to facilitate conversation with the requester during the course of the search. The modemphone is connected so that it receives the information transmitted from the computer to the terminal in the Library. The requester dials the number of the modemphone at his terminal and he is connected to it via the acoustic coupler (or modem), so that the information transmitted to the Library terminal is also transmitted to the requester's terminal, thus enabling him to monitor the search.

Online Search Teleconference Service (cont'd)



Schematic Diagram of JPL Hookup

1. Master operator initiates a RECON session (A) using Modem (F).
2. Voice communication is established (B) between the master operator and the slave operator.
3. Slave operator establishes data communication (C) by calling modem (E) from modem (D).
4. A specially fabricated cable (G) is required to attach the two modems (E and F) to the master terminal.
5. For further details, call Carol Sterkin at JPL, (213) 354-6911.

Key References for Airfoil Data

Almost all reference personnel today are somewhat stymied when attempting to field reference questions on airfoil data. Responding to such questions is not easy because this type of data is not generally available from computerized data banks; and it is exceedingly elusive in manual files.

The RECON citation displayed below is from the NASA Library Network. The document, entitled Summary of Airfoil Data, was published at Langley in 1945 and is perhaps one of the best references in the world on airfoil data. NACA airfoil development began in 1929. The NACA number system for airfoils, e.g., NACA-2415, NACA-23015, NACA-652-015, etc., is described completely for the 16-year period ending in 1945. The airfoil data, in both graphical and tabular form, will provide a host of answers to reference queries.

Key References for Airfoil Data (cont'd)

Every aeronautical research library should have a copy of this publication. Copies are available at NTIS for $21.00. Order the publication by the report number, NACA-TR-824, and its title. It is available under the current "Rush Order" category at NTIS.

```
  1      1      1 TTL/SUMMARY **2 AIRFOIL
ENTER:
        DISPLAY 81/2/1
      77V20297 1945 ISS: 07 TL521.A33 NO.84
AUTH: A/ABBOTT, IRA HERBERT.; B/DOENHOFF, ALBERT EDWARD VON.; C/STIVERS, LOUIS
      S. PAT: B/JOINT AUTHOR.; C/JOINT AUTHOR.
UTTL: ** SUMMARY OF AIRFOIL ** DATA, AIRFOILS DATA.
      NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS. REPORT NO. 824. WASHINGTON,
      NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS. REPORT NO. 324.
      LC: AEROFOILS.
      NASA: / AIRFOILS/ HANDBOOKS/ TABLES (DATA)
      MAIN-AUTH  TRACE-SERS*TITL*AUTH*  CATLG BY-AMES-ATL
      77/02/02  AVAIL: / AMES-ATL
```

Sue Seward of Langley, upon review of this article, suggested inclusion of the following additional references on airfoil data that can be displayed on your RECON equipment.

```
ACC,PDT,YER,CLN,CCN,PAG,CUL,AU:UTL
FORMAT-DEFINITION ACCEPTED.
        DISPLAY 99/4/1-5 OF 5
      74A42038   74/09/00   16 PAGES   AUTH: A/MILEY, S. J.
UTTL: ON THE DESIGN OF AIRFOILS FOR LOW REYNOLDS NUMBERS
      84022858   1984   QA929.A42 1984   VIII, 320 P. : ILL. ; 30 CM.   AUTH:
      A/ALTHAUS, DIETER; B/WORTMANN, FRANZ XAVER
      STUTTGARTER PROFILKATALOG I :
      79021816   1976   TL574.W8   45 P. : 30 CM.   AUTH: A/WORTMANN, F          X
      AIRFOIL SYNTHESIS TECHNIQUES. -
      78V13385   1961   TL574.A4R513   LC-62-6915   284 P.  ILLUS.  29 CM.
      AUTH: A/RIEGELS, FRIEDRICH WILHELM.
      AEROFOIL SECTIONS; RESULTS FROM WIND-TUNNEL INVESTIGATIONS, THEORETICAL
      FOUNDATIONS.
      75V13892   1959   TL672.A2 1959   LC-60-1601   693 P. : ILL. : 22 CM.
      AUTH: A/ABBOTT, IRA HERBERT; B/DOENHOFF, ALBERT EDWARD
      THEORY OF WING SECTIONS :
        DISPLAY 72V41551/4
      72V41551   1971   TL574.A4R49   LC-71-182597   143 P. ILLUS. 24 CM.
      AUTH: A/RICE, MICHAEL S.
      HANDBOOK OF AIRFOIL SECTIONS FOR LIGHT AIRCRAFT.
```

Offer of Special Collection

The Facility has a bound collection of the Congressional Record from 1963 through 1974, excluding the years 1965 and 1969. The collection requires 42 linear feet of shelving and is hereby offered to any NASA installation, on a first-call, first-serve basis. If there is no response by December 21, the collection will then be offered to any RECON user on a first-call, first-serve basis.

RECON Training Workshops

RECON Advanced Training - December 7-8, 1982

RECON Advanced Training is scheduled at Marshall/Redstone in Huntsville, AL on December 7 and 8. It is not too late to sign up. For details, see NASA/RECON Bulletin 82/9 of September 1982.

RECON Training Workshops (cont'd)

RECON Basic Training - January 18-19, 1983

RECON Basic Training is scheduled to be held at the Facility on January 18 and 19, 1983.

RECON Basic and Advanced Training - March 21-24, 1983

Basic Training - March 21-22, 1983 (Mon. & Tues.)

California Institute of Tech.
Graduate Aeronautical Labs.
1201 E. California Blvd.
Pasadena, CA 91125

Cal. Tech. hostess is
Ms. Virginia Anderson
(213) 356-4521

Advanced Training - March 23-24, 1983 (Wed. & Thurs.)

Hughes Aircraft Co.
2000 E. El Segundo Blvd.
El Segundo, CA 90245

Hughes Aircraft hostess
is Ms. Jeanne Balikos
(213) 616-0408

Organizations planning to send one or more representatives to these workshops are requested to inform Mr. Philip F. Eckert at the Facility of their plans (301) 859-5300, Ext. 363 or 374.

NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

82/12

DECEMBER 1982

CONTENTS

The "A" Series

Commencing with this bulletin, NASA Headquarters will feature on a monthly or bimonthly basis for the next several months an accession number series of the NASA data base. The first accession series to be described is the largest in the data base - the A Series.

The A Series has several aliases - A, 1A, A10K, A-10000, and IAA. The A80K Series (or A-80000) is not considered part of the Series today. The accessions in this short-lived subset of the data base (1964-1969) were used for the Library of Congress input to the Continuing Bibliography entitled, Aerospace Medicine & Biology - NASA SP-7011. IAA, of course, is the abbreviation for International Aerospace Abstracts, which has been produced since January 1961. From January 1961 to December 1962, the journal was produced monthly on a manual basis and was funded by the National Science Foundation and the United States Air Force. Since January 1963, the journal has been produced on a semimonthly basis by the Technical Information Service (TIS) of the American Institute of Aeronautics and Astronautics (AIAA) under contract with NASA. The AIAA was formally organized on January 1, 1963 as a result of a merger between the Institute of Aerospace Sciences (IAS) and the American Rocket Society (ARS). The abstract section of the journal, front matter, and covers have been prepared in New York City. As a cooperative measure and to insure full compatibility with STAR, the IAA indexing group was instructed from the very beginning to use the NASA indexing authority lists - the Subject Authority List from 1962 through 1967 and the NASA Thesaurus from 1968 to date. Employing similar input formats, the camera-ready copies of the IAA subject indexes were prepared from the Facility tapes that were processed by special programs at the National

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland. (Telephone: (301)-859-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286) Other problems, suggestions and comments may be directed to Buford Smith or John Wilson (Telephone (202)-755-3465, NASA Headquarters, Code NIT-42, Washington, D C 20546)

The "A" Series (cont'd)

Library of Medicine (in the 1960's) and at GPO (in the 1970's and 1980's). All indexes for both STAR and IAA are currently being generated by the Videocomp at GPO. The camera-ready copy of the IAA abstract section of the semimonthly journal continues today to be produced in the New York area.

As a major supplier to the overall NASA data base, the AIAA Technical Information Service continues today to be the heaviest contributor, excluding the Facility, to the NASA Thesaurus. Each new term recommended as an added entry to the NASA Thesaurus by TIS has been submitted in a highly professional manner, suitably supported by backup documentation.

Through Issue 24 of 1982 (December 15, 1982) the IAA accession population was in excess of 705,000. For the year 38,267 accessions had been added. Over a 20-year period the average input has been 35,295 per year. In general, STAR covers the report literature (more about STAR in an early 1983 bulletin). Complementary coverage of the so-called "open literature" - books, journal articles, and other formally published materials - is provided by International Aerospace Abstracts. Together, the two journals STAR and IAA cover the world's current literature dealing with aerospace/aeronautics science and technology. By special cooperation between a government agency (NASA) and a private organization (AIAA), the journals are produced alternately, two each per month, throughout the year (IAA on the 1st and 15th and STAR on the 8th and 23rd). Both use the same category scheme, the same indexing authority, and both contain basically the same indexes. IAA titles are text searchable for the whole collection (1963 to date); the abstracts are text searchable from 1972 to date.

A quick scan of the front matter of the Annual Subject Index for IAA will reveal a listing of over 500 periodicals of which over half are foreign that are scanned for input. TIS acquisitioners attempt to select the most relevant articles for the IAA journal; they must be selective because the size of the accession series for any given year is a function of the funding. A high proportion of foreign articles is selected, cataloged, and abstracted in English with a language note in the citation indicating the language, e.g., In FRENCH. Later, if a translation of a previously announced article appears, the translation may be reannounced, with a reference note in the abstract portion as follows: For abstract, see issue 01, p. 1234, Accession No. A81-34567.

Virtually all users of the NASA scientific and technical information system are extremely satisfied with the variety of information services in the overall data base. Countless times this expression has been made, "The search results were excellent because they contained the 'open literature' that complemented or augmented the report literature."

NASA/RECON Training

NASA/RECON advanced training sessions were held at Marshall Space Flight Center and Redstone Scientific Information Center in Huntsville on December 7 and 8. Twenty-one information specialists attended the sessions as follows: 12 from RSIC, 5 from Marshall, 2 from NSTL, and 2 from Arnold Air Force Station.

NASA/RECON training is scheduled in January and March as follows:

Basic Training at the Facility - January 18-19, 1983

Basic Training at Cal Tech - Pasadena, CA, March 21-22, 1983

Advanced Training at Hughes - El Segundo, CA, March 23-24, 1983

For details, see NASA/RECON User's Bulletin 82/11 of November 1982.

New Charges for 1983

NASA/RECON. NASA/RECON user charges will be changed in 1983 as follows:

- The $120.00 annual maintenance charge is reduced to $60.00 for the second and succeeding years.
- The $15.00 per connect hour charge will be changed to $20.00 per hour.
- The 3 cents per printed citation will be increased to 5 cents per printed citation.
- The $7.00 per connect hour for TELENET service will remain unchanged.

Literature Searches. The free literature search service provided by the NASA Scientific and Technical Information Facility will be discontinued to other than universities and NASA installations. Beginning January 3, 1983, a charge of $80.00 will be made for each search that is performed by a Facility analyst. Billing procedures for literature searches were mailed to the overall NASA user community on November 30, 1982.

Holiday Greetings

The Scientific and Technical Information Branch at NASA Headquarters joins the NASA Scientific and Technical Information Facility in extending holiday greetings to the NASA User Community.

1983

NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

83/1

JANUARY 1983

CONTENTS

The STAR Series

Last month NASA Headquarters in RECON User's Bulletin 82/12 discussed the "A" Series and promised to feature an accession series of the NASA data base on a monthly or bimonthly basis for the next several months.

STAR, the accession series for this bulletin, was introduced in the early 1960's - a new product designed to ease the myriad tasks of aerospace/aeronautics librarians.

STAR ingredients were the N10K accessions. The N10K Series (also called IN or N-10000) actually appeared in a NASA publication entitled Technical Publication Announcements (TPA) in 1962. It was short-lived and succeeded by STAR (Scientific and Technical Aerospace Reports) on January 8, 1963, which continues to be NASA's primary medium for announcing the unclassified, unlimited report literature to the aerospace community.

STAR or the N10K Series is the second most populous accession series in the overall NASA data base. Through STAR 24 (December 23, 1982) there were 510,690 STAR accessions in the data base. The abstract journal STAR is published semi-monthly (on the 8th and 23rd) with each issue containing about 950 to 1050 accessions. The material entered into STAR consists of both domestic and foreign unclassified, unlimited technical reports. STAR accessions cover research reports that, with rare exceptions, have been published in the past two years. In addition to technical reports, STAR covers pertinent theses, publicly available translations, and NASA-owned patents and patent applications. Citations from other government agencies, mainly from the Departments of Defense, Energy, Transportation (including FAA), and Commerce

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland. (Telephone (301)-859-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286) Other problems, suggestions and comments may be directed to Buford Smith or John Wilson (Telephone (202)-755-3465, NASA Headquarters, Code NIT-42, Washington, D C 20546)

.ie STAR Series (cont'd)

(including NTIS), that are within the scope of NASA's interest are selected and announced in STAR. In addition, the European Space Agency (ESA) provides several hundred technical reports per year that are originated abroad.

Virtually all new NASA-funded (R&D) documents are entered into the N10K data base. The exceptions are those documents that contain a paucity of technical information or are of odd size and/or shape, and those that have distribution limitations for administrative or security reasons.

The Primary Data Base for STAR (1968 - to date) contains about 380,000 accessions as compared to the Alternate Data Base (1962-1967) with 130,000 accessions - almost a 3 to 1 ratio. All STAR accessions are text searchable by the Title family (Title, Title Supplement, Title Extension, and the Notation of Content). STAR abstracts and analytic notes are text searchable from 1972 to date. All STAR accessions are subject term searchable by two levels of indexing - major terms or minor terms.

New RECON File Collections

On January 3, 1983, two new file collections, O and P, were implemented on the RECON network for dedicated and dial-up users. File Collection O is equal to File Collection D less the X70K series; and File Collection P is equal to File Collection N less the X70K series.

The X70K series contains several thousand limited distribution and security classified accessions that are generally unavailable to a large segment of the RECON user community. All users that have classified profiles in either the DTIC or NASA registration files are still given the use of File Collections D and N. Users without classified profiles default to File Collection O and can access file Collection P.

These changes were made in recognition of DOD security policies. Affected users will receive additional information via future correspondence from NASA.

Index for 1982 RECON User's Bulletin

The Index for NASA/RECON User's Bulletin 82/1 through 82/12 is forwarded as a separate entity with this bulletin.

NASA/RECON Training Plans

A RECON basic training workshop was conducted at the Facility on January 18 and 19 for 28 information specialists representing 17 government agencies or contractors.

NASA/RECON basic and advanced training workshops are scheduled at Cal Tech (Pasadena) and Hughes Aircraft (El Segundo) on March 21-22 and March 23-24, respectively. See RECON User's Bulletin 82/11 for details.

User Alert

In order to respond quickly to problems that occasionally occur with RECON search processing, a special message has been developed that can be sent in a matter of seconds from the Facility to the "troubled" user. It is shown below.

****
****

A T T E N T I O N

RECON HAD TROUBLE PROCESSING YOUR INPUT. PLEASE CONTACT THE RECON COORDINATOR BEFORE ENTERING ANOTHER COMMAND. 301-621-2988 OR 301-859-5300 EXT. 286.

THANK YOU FOR YOUR COOPERATION

****
****

January - December 1982

82/1 through 82/12

NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

83/2

FEBRUARY 1983

CONTENTS

NASA/RECON Training

NASA/RECON basic and advanced training workshops are scheduled at Cal Tech (Pasadena) and Hughes Aircraft (El Segundo) on March 21-22 and March 23-24, respectively. See RECON User's Bulletin 82/11 for details.

A two-day NASA/RECON advanced training workshop is planned for users in the New England area in May or June. Users located in this area are requested to inform Mr. Philip F. Eckert (301-859-5300, X374) if they could attend and what would be the most desirable dates and location. A host site is needed, and anyone who will volunteer to be the host will be greatly appreciated.

Four Useful References

The first two references shown below are high-quality, authoritative research efforts that deal with aircraft altitude and aircraft speed (mph and knots), and the speed of sound (Mach 1) at various altitudes (pressure altitudes in terms of geopotential feet). The first reference (NASA TN-D-822) was published in August 1961 and is noteworthy for the introduction of a new unit of height - geopotential feet - a unit that takes into account the decrease of the gravity constant with height. The second reference (NASA RP-1046) is an in-depth treatise on the measurement of aircraft speed and altitude and is based, in part, upon the "U.S. Standard Atmosphere, 1976," whereas the first reference was based, in part, upon the ICAO (International Civil Aviation Organization) standard atmosphere. This reference has also been published as a textbook - as a Wiley-Interscience publication. See also 80V41360 and 81A32401.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone (301)-859-5300 ext. 286) or Washington, D. C. (Telephone (202)-621-1910 ext. 286) Other problems, suggestions and comments may be directed to Buford Smith or John Wilson (Telephone (202)-755-3465 NASA Headquarters, Code NIT-42, Washington, D.C. 20546)

our Useful References
c :'d)

From the two publications, Mach 1 speeds are as follows:

	Sea Level	36,500' to 82,000'	36,090' to 65,800'
TN-D-822	761.21 mph (661.48 kts)	660.05 mph (573.57 kts)	----------
RP-1046	761.22 mph (661.48 kts)	----------	660.05 mph (573.57 kts)

Note: 660 mph and 573.5 kts are the commonly accepted Mach 1 values on which aircraft speeds are derived for commercial airliners cruising at "jet altitudes." Mach 0.82, a cruising speed for many airliners, translates into 541 mph or 470 kts.

The third reference (NASA RP-1060) is a first-rate monograph on subsonic aircraft, with emphasis on the estimation of approximate size, weight, and power (engine) intended to meet specified performance requirements - for both jet-powered and propeller-driven aircraft. Excellent descriptions are given for first-generation air transports, second-generation transports, wide-body transports, and dedicated cargo transports. Several aspects of technical evaluation of the airplane from World War I through 1980 are presented. This high-quality NASA RP (reference publication) is currently being used as a textbook in some colleges and universities. See also 81V14884.

The fourth reference is NASA SP-440, entitled "Wind Tunnels of NASA." This recent publication makes a magnificent effort to bridge the gap between the engineer and the layman in the comprehension of wind tunnel facilities and their uses. See also 81V31156.

All four publications are available from NTIS.

DISPLAY 82N71396/2
82N71396 CATEGORY 21 RPT#: NASA TECHNICAL NOTE D-822 61/08/00 37 PAGES UNCLASSIFIED DOCUMENT
AUTH: A/LIVINGSTON, S. P.; B/GRACEY, W.
TABLES OF AIRSPEED, ALTITUDE, AND MACH NUMBER BASED ON LATEST INTERNATIONAL VALUES FOR ATMOSPHERIC PROPERTIES AND PHYSICAL CONSTANTS
CORP: National Aeronautics and Space Administration. Langley Research Center, Hampton, Va.

TYPE 80N24296/2
80N24296*# ISSUE 15 PAGE 1936 CATEGORY 5 RPT#: NASA-RP-1046 L-12610 80/05/00 311 PAGES UNCLASSIFIED DOCUMENT
UTTL: Measurement of aircraft speed and altitude
AUTH: A/GRACEY, W.
CORP: National Aeronautics and Space Administration. Langley Research Center, Hampton, Va. AVAIL.NTIS SAP: HC A14/MF A01
MAJS: /*AIRCRAFT INSTRUMENTS/*AIRSPEED/*FLIGHT ALTITUDE
MINS: / ACCURACY/ CALIBRATING/ PRESSURE MEASUREMENT/ STATIC PRESSURE
ABA: R.E.S.
ABS: Problems involved in measuring speed and altitude with pressure-actuated instruments (altimeter, airspeed indicator, true-airspeed indicator, Machmeter, and vertical-speed indicator) are examined. Equations relating total pressure and static pressure to the five flight quantities are presented, and criteria for the design of total and static pressure tubes are given. Calibrations of typical static pressure installations (fuselage nose, wing tip, vertical fin, and fuselage vent) are presented, various methods for flight calibration of these installations are described, and the calibration of a particular installation by two of the methods is described in detail. Equations are given for estimating the effects of pressure lag and leaks. Test procedures for the laboratory calibration of the five instruments are described, and accuracies of mechanical and electrical instruments are presented. Operational use of the altimeter for terrain clearance and vertical separation of aircraft is discussed, along with flight technical errors and overall altitude errors of aircraft in cruise operations. Altitude-measuring techniques based on a variety of properties of the Earth and the atmosphere are included. Two appendixes present airspeed and altitude tables and sample calculations for determining the various flight parameters from measured total and static pressures.

TYPE 80N29245/2
80N29245*# ISSUE 20 PAGE 2643 CATEGORY 1 RPT#: NASA-RP-1060
L-13367 80/08/00 445 PAGES UNCLASSIFIED DOCUMENT
UTTL: Subsonic aircraft: Evolution and the matching of size to performance
AUTH: A/LOFTIN, L. K., JR.
CORP: National Aeronautics and Space Administration. Langley Research Center, Hampton, Va. AVAIL.NTIS SAP: HC A19/MF A01
MAJS: /*AIRCRAFT DESIGN/*AIRCRAFT PERFORMANCE/*PROPELLER EFFICIENCY/*PROPULSIVE EFFICIENCY/*SIZE (DIMENSIONS)/*TRANSPORT AIRCRAFT
MINS: / AERODYNAMIC CHARACTERISTICS/ AERODYNAMIC CONFIGURATIONS/ AIRCRAFT NOISE/ AIRSPEED/ JET AIRCRAFT/ LIGHT AIRCRAFT/ WEIGHT (MASS)
ABA: Author
ABS: Methods for estimating the approximate size, weight, and power of aircraft intended to meet specified performance requirements are presented for both jet-powered and propeller-driven aircraft. The methods are simple and require only the use of a pocket computer for rapid application to specific sizing problems. Application of the methods is illustrated by means of sizing studies of a series of jet-powered and propeller-driven aircraft with varying design constraints. Some aspects of the technical evolution of the airplane from 1918 to the present are also briefly discussed.

DISPLAY 01/2/1
81N32153*# ISSUE 23 PAGE 3151 CATEGORY 9 RPT#: NASA-SP-440
81/00/00 162 PAGES UNCLASSIFIED DOCUMENT
UTTL: Wind Tunnels of NASA
AUTH: A/BAALS, D. D.: B/CORLISS, W. R.
CORP: National Aeronautics and Space Administration, Washington, D. C.
AVAIL.NTIS SAP: HC A08/MF A01
Original document contains color illustrations
MAJS: /*HISTORIES/*WIND TUNNEL APPARATUS/*WIND TUNNELS
MINS: / AERODYNAMICS/ FLIGHT SIMULATORS/ WIND TUNNEL CALIBRATION
ABA: T.M.
ABS: The contribution of wind tunnels to aerodynamic studies is described. The development of the wind tunnel and the problems of calibration, scaling, and instrumentation are discussed. The NASA wind tunnels form the basis for the book, but Air Force, university, and industrial facilities are also considered.

New RECON Records

These new RECON records have been recorded:

- A new daily high for number of commands - 17,626 on 02-08-83
- A new weekly high for number of commands - 69,125 for the week ending 01-28-83
- A new monthly high for number of commands - 270,095 in January 1983

STAR Issues 1 and 2

STAR Issues 1 and 2 for 1983 will be mailed from Langley Research Center on or before March 4. Delay caused by new GPO contractor problems.

NASA
National Aeronautics and Space Administration

Scientific and Technical Information Branch

RECON User's Bulletin

83/4
APRIL 1983

25th Anniversary 1958-1983

CONTENTS

NASA/RECON Training

NASA/RECON basic and advanced training sessions were held at Cal Tech in Pasadena on March 21-22 for 39 information specialists and librarians and at Hughes Aircraft in El Segundo on March 23-24 for 44. This was the largest number of retrieval personnel trained during two two-day training sessions. The Chief of Scientific and Technical Information Branch and staff at NASA Headquarters publicly express their appreciation and gratitude to Ms. Jeanne Anderson and the California Institute of Technology and to Ms. Jeanne Balikos and the Hughes Aircraft Co., Electro-optical and Data Systems Group. These two hostesses and their training facilities along with Ms. Carol Sterkin of JPL, who was a voluntary instructor at both locations, contributed heavily to make the 1983 California RECON training program an unqualified success. Mr. Van A. Wente also relays NASA's appreciation to the appropriate authorities of Cal Tech, Hughes, and JPL.

The RECON advanced training workshop at the C.S. Draper Lab., 555 Technology Square, Cambridge, MA 02139, is firmly scheduled for May 24-25. We hope that all New England users will attend and non-New England users are also invited to attend. For hotel suggestions call Ms. Betty Edwards, 617-258-3555. Formal written invitation packets were mailed to prospective attendees on April 25.

Use of the KEEP Command with the ORDER Command

You may scan a RECON set of accessions in Format 2 and KEEP those accessions of interest by keying the KEEP Command after an item has been displayed. You must enter the KEEP Command before the next item is displayed.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301)-859-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286) Other problems, suggestions, and comments may be directed to Buford Smith or John Wilson (Telephone: 202) 755-3465, NASA Headquarters, Code NIT-42, Washington, D. C. 20546)

L . of the KEEP Command with the ORDER Command (cont'd)	For example, scanning a set of 25 N10K or N70K accessions, you may use the KEEP Command for items 3, 6, 15, 20, and 25. Set 99 would then have 5 members. As a labor saving technique, you may use the ORDER Command for Set 99 by entering O 99. Once Set 99 has served its purpose, Release 99 by the Command, R 99. Omitting the releasing of 99 could cause trouble later on because 99 is a sanctuary for KEEP's until released or until a BEGIN or BEGIN BYPASS is executed. An END search will not snuff out set 99.
Online Ordering	NASA contractors, U.S. Government agencies, and Government contractors are now able to obtain NASA-generated documents directly from the Facility at NTIS prices by using the NASA/RECON Order Command. This service is limited to NASA-generated documents that are identified by an asterisk immediately following the accession number in a Format 2 display, e.g., 83N13419*. Requests for non-NASA documents from the above-named organizations will not be filled.
Format and Coverage Changes	Commencing with the May issue, the NASA/RECON User's Bulletin will be changed to the NASA STI-RECON Bulletin. The revised Bulletin will cover developments in NASA Scientific and technical information (STI) projects, products and services in addition to RECON items. In the interest of economy, current stock (with the old telephone numbers for the RECON Coordinator at the bottom of the first page) is being used for this last issue. The new format for May 1983, will contain the correct phone number for the RECON Coordinator, which is 301-621-0300.

NASA RECON User's Bulletin

National Aeronautics and Space Administration

Scientific and Technical Information Branch

83/3

MARCH 1983

25th Anniversary 1958-1983

CONTENTS

New Facility Telephone Numbers

As a result of upgrading the Facility telephone system, new Facility telephones were made effective on Monday, March 21, as follows:

New RECON Coordinator's Telephone No. (HOTLINE)	(301) 621-0300
New RECON Data Line No.	(301) 621-0350
New RECON Vadic Data Line No.	(301) 621-0360
New Facility (Switchboard) No.	(301) 621-0100

Telephone numbers of key personnel are given on pages 4 and 5.

Ordering NASA Documents by NASA/RECON

Effective April 1, 1983, non-NASA users may order selected NASA documents for a fee from the NASA Scientific and Technical Information Facility. To place your order, use the ORDER command, as outlined in 4.3.15 of the NASA/RECON System User's Manual, Revision 3, May 1980. (A modified version of the ORDER command is being forwarded to RECON users.) Each document must be ordered by NASA accession number, and only NASA documents with an asterisk (*) immediately following the accession number will be supplied.

Charges will be as follows:

Paper copy: For "N" accession numbers, the same price as charged by NTIS. For "X" accession numbers, no charge to authorized recipients.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland, (Telephone: (301)-859-5300 ext. 286) or Washington, D. C. (Telephone: (202)-621-1910 ext. 286) Other problems, suggestions, and comments may be directed to Buford Smith or John Wilson (Telephone (202)-755-3465, NASA Headquarters, Code NIT 42, Washington, D C 20546)

Ordering NASA ocuments by NASA/RECON (cont'd)

Microfiche: Same as NTIS charge for "N" accession numbers. No charge for "X" accession numbers to authorized recipients.

There will be no change in present practices for NASA centers, JPL, RSIC, IACs and STACs.

Directory of Numerical Databases

As of March 1, 1983 a new File Collection Q, Directory of Numerical Databases (DND), was made available on RECON for the entire RECON user community.

The Directory is a referral listing of scientific and technical data bases that are computer-readable and may be used by NASA and its contractors. The DND provides a brief description of each listed data base and gives the name and telephone number of a key person from whom access details may be obtained.

Descriptions of over one-hundred are provided, covering a broad range of technical fields of interest to NASA. The DND File Collection was compiled by the Scientific and Technical Information Branch of NASA Headquarters. For additional details about the DND, call John Wilson, Code NIT-42 of NASA Headquarters, (202) 755-3465.

To access the DND, select File Collection Q, and Enter: HELP X033 or HELP SEARCH Coll-Q. The file is easily searchable by text and non-text terms, which are displayed in the HELP data.

A Bit of Boolean

Whether the RECON searcher knows it or not, he or she is employing Boolean logic every time a combine command is performed. Little did George Boole know that his last name would become an adjective, falling just short of becoming a household word. As you have now guessed, a short, short treatise on Boole and his adjective (Boolean) will be given here.

George Boole was an English logician and mathematician who lived in England and Ireland in the 1800's (1815-1864). He was one of a very prominent group of mathematicians that also included Arthur Cayley and James Joseph Sylvester, all of whom made important contributions to the field of mathematics. Boole, who spent most of his active years in Ireland, discovered that it was possible to apply algebraic symbols to logic - a step that led to his publishing a pamphlet called Mathematical Analysis of Logic (1847). Believing it to be incomplete and imperfect, he published a much more precise work, An Investigation of the Laws of Thought, on Which are Founded the Mathematical Theories of Logic and Probabilities (1854). It was from these two works that the Boolean laws involving 0 and 1 and and/or/not had their humble beginnings - and far-reaching, multibillion-dollar consequences.

A Bit of Boolean (cont'd)

For almost a hundred years, the so-called Boolean laws were an academic curiosity. They were applied to set theory in the late 1800's and early 1900's, but they were of no practical value until a young billiant research assistant in the Department of Electrical Engineering at the Massachusetts Institute of Technology (MIT) in 1938 published the first paper demonstrating that electrical relay and switching circuits behaved in accordance with the Boolean laws or postulates. The author, now the Donner Professor Emeritus of the Department of Electrical Engineering and Computer Science at MIT, was Claude E. Shannon, and his paper was, A Symbolic Analysis of Relay and Switching Circuits (AIEE Translations, Volume 57, 1938, pp. 713-723). Shannon also was a co-author of The Mathematical Theory of Communication and the founder of Information Theory. A second significant paper followed by 14 years. It also demonstrated the practicality and usefulness of the Boolean laws in An Application of Boolean Algebra to Switching Circuit Design. Its notable author was Robert E. Stahler, and it may be found in the Bell System Technical Journal, Volume XXXI March 1952, Number 2, pp. 280-305.

George Boole did not create all of the rules of logic as some of his followers and admirers would like to believe. However, his name deservedly appears to be well embedded in written materials or spoken words that are pertinent to computerized retrieval operations or to the logic section of a computer. For more about George Boole, see The World of Mathematics, Volumes 1 and 3, by James R. Newman, and An Introduction to the Foundations and Fundamental Concepts of Mathematics by Howard Eves. Full descriptions of these two excellent works are:

```
        DISPLAY 02/2/2
76V24889 1956 ISS: 30 QA3.N48 510.82 LC-55-10060
AUTH: A/Newman, James Roy, A/1907-1966 PAT: A/ed.
UTTL: The world of mathematics; TLSP: a small library of the literature of
      mathematics from A'h-mose the scribe to Albert Einstein, presented with
      commentaries and notes by James R. Newman.
      Simon and Schuster, New York, 4 v. (xviii, 2535 p.) illus. 23 cm.
      Bibliographical footnotes.
      LC: Mathematics--Collected works.
      NASA: / BIBLIOGRAPHIES/ LIBRARIES/ MATHEMATICS
      JPL: / QA3.N553 LA: / QA3.N48 V.2/ QA3.N48 V.3/ QA3.N48 V.4
      MAIN-AUTH  TRACE-TITL*  CATLG BY-LC
      76/07/09  AVAIL: / FLIGHT/ JPL/ LANGLEY


4     1     1 TTL/FOUNDATIONS *9 FUNDAMENTAL *9 CONCEPTS
        DISPLAY 04/2/1
77V16795 1965 ISS: 02 QA9.E9 1965 510 LC-65-13241
AUTH: A/Eves, Howard
UTTL: An  introduction to the  ** foundations and fundamental concepts  **
      of mathematics
      rev. eds. Holt, Rinehart and Winston, New York, xv, 398 p.
      NASA: / ANALYTIC GEOMETRY/ BOOLEAN ALGEBRA/ GROUP THEORY/ MATHEMATICAL
      LOGIC/ REAL NUMBERS/ SET THEORY
      MAIN-AUTH  TRACE-  CATLG BY-FACILITY
      77/01/05  AVAIL: / LANGLEY
```

NASA/RECON Training

The C. S. Draper Laboratory, Cambridge, MA, has kindly offered to host NASA/RECON Advanced Training on May 24-25. Organizations planning to send one or more representatives to this workshop are requested to inform Mr. Philip F. Eckert at the Facility of their plans, (301) 621-0140.

SCIENTIFIC AND TECHNICAL INFORMATION FACILITY

*(operated under contract by PRC Government Information Systems)**

Mailing Address:
NASA Scientific and Technical Information Facility
P.O. Box 8757
B.W.I. Airport, MD 21240

Location:
NASA Scientific and Technical Information Facility
800 Elkridge Landing Road
Linthicum Heights, MD 21090
Telephone:(301)621-0100, Washington, DC (301)859-5300, Baltimore

**Note: Calls from the Washington, DC area may be direct dialed by dialing 621-0 and the proper extension. Baltimore area calls must go through the switchboard.*

	Telephone Extension
Herman W. Miles, *General Manager*	200
Donald E. Jewell, *Assistant General Manager for Information Technology*	204
Mary A. Huffer, *Assistant General Manager for Information Services*	202
Thomas C. Kelly, *Resources Management*	220
Janice Freeman, *Document Processing*	101
Philip French, *Document Evaluator*	111
Peggie Young, *Acquisitions*	110
Thelma L. Tillery, *Accessions*	122
Linda Albers, *Publications*	105/106
Ronald L. Buchan, *Lexicography*	103
Herner & Co., *Cataloging, Indexing and Abstracting*	
Michael J. Streeks, *Project Manager and Cataloging*	112
Jacqueline Streeks, *Indexing and Abstracting*	116
Price, Williams & Assoc., Inc., *Data Entry*	
Gladys M. Thomas, *Manager*	109
Logical Technical Services Corporation	
Dr. James E. Beebe, *Technology Transfer*	240
Walter M. Heiland, *Technology Communications*	241
Earl Watterson, *Library Services*	180
Eric J. Vogel, *Deputy Manager*	188
Processing Department	
Edith Dixon, *Team I*	183
Maxine Tucker, *Team II*	187
Katherine Goodman, *Team III*	190
NALNET Hotline, 621-0333	

SCIENTIFIC AND TECHNICAL INFORMATION FACILITY (con't)

	Telephone Extension
Joseph E. Gignac, *User Services*	160
Philip F. Eckert, *Information Services*	140
Hal Wynne, *Search Service*	155
Edna Fleek, *Search Service*	157
Bill Owens, *Search Service*	154
Dorothy Corbitt, *Registration and Document Supply*	148
B. J. Bates, *Applications Software*	260
William Hand, *Deputy Manager*	262
Duchesne Clark, *NALNET/NOIPS Group*	269
Jirair Khatcheressian, *RPCS/RMIS/Special Projects Group*	281
Fred Cole, *RECON/CAPS Group*	288
Richard Hecox, *Data Base Group*	275
Yvonne Turner, *Technical Editor*	264
Donald E. Jewell, *Computer Systems (Acting)*	204
Mattie Morse, *Computer Support*	307
Patricia Brooks, *Operations*	304
Michael F. Moriarty, *RECON Coordinator*	301
James Watts, *Telecommunications*	320

NASA STI-RECON Bulletin & Tech Info News

National Aeronautics and Space Administration

Scientific and Technical Information Branch

May 1983

Bulletin to Cover STI Activities

Beginning with this issue, the Bulletin will cover developments in NASA scientific and technical information (STI) projects, products, and services of concern to our users. NASA/RECON will continue to be covered as before. Readers are invited to contribute items that other users of NASA STI will find useful. Send or telephone them to John Wilson at Headquarters (FTS 755-3465/Commercial 202-755-3465) or Philip F. Eckert at the Facility (301) 859-5300.

Recent Changes in the STI Branch

Buford Smith has been named Head, Systems and Retrieval Section (NIT-42).

Kay Voglewede has been named Acting Head, Technical Publications Section (NIT-43), following the death of Frank Rowsome.

James Phillips, Head, Program and Analysis Section (NIT-41), has assumed the Library Administrator's activities following the death of Albert String. It is anticipated that a new Library Administrator will be recruited.

Continuing Bibliographies under Review

As a result of a survey of NASA Centers and contractors, a review is being initiated of several regularly issued bibliographies to determine how their usefulness might be improved. As a first step the quarterly Earth Resources (NASA SP-7041) is being reviewed by the Office of Space Science and Applications. Others planned to be reviewed include Energy (NASA SP-7043), also quarterly, and Aerospace Medicine and Biology (NASA SP-7037) and Aeronautical Engineering (NASA SP-7037), both monthly. Centers and recipients of these publications are being asked to participate.

Access to NASA/RECON

NASA has continued to expand online access to NASA/RECON. Included are government agencies and their contractors, and universities whose scientific and engineering activities relate to aeronautics and space research. Therefore, your organization may be qualified to gain online access on a reimbursable basis.

Over two million citations (1.7 million documents and 440,000 books) are accessible online via the NASA/RECON system. NASA/RECON was developed initially to serve the NASA Centers and for technology transfer through the various Industrial Application Centers. Access to NASA/RECON not only includes the NASA organizations but also over 150 users on a reimbursable basis. These users pay an annual maintenance fee to cover training, textual material, and technical support. They also pay online charges and communications cost. Charges effective January 1, 1983 are:

Maintenance Fee	$120.00	First year
Maintenance Fee	60.00	2nd & subsequent year
Search Time	20.00	Connect hour
Citation Print	.05	Each printed at Facility
Telenet	7.00	Connect hour

25th Anniversary 1958-1983

Multilingual Aeronautical Dictionary

This unique source book contains 876 pages of the latest lexicon of aeronautical research and development. It provides users with 7319 terms, which are defined in English and translated into equivalent terms in Italian, French, Spanish, Greek, Dutch, German, Russian, Turkish, and Portuguese. The dictionary also includes a list of 4000 often-used English-language acronyms and abbreviations, many space-related, with their definitions.

The dictionary was developed by the Technical Information Panel of the Advisory Group for Aerospace Research and Development (AGARD), an agency of the North Atlantic Treaty Organization (NATO). Scientists and engineers from the NATO nations pooled their linquistic and technical expertise to select the terms for inclusion, prepare the definitions, and provide translated equivalents.

Now, you can add this 876-page Multilingual Aeronautical Dictionary to your library for only $98.50, includin postage and handling. You will receiv a handsome, hardbound volume, superbly designed for years of helpful reference. Gold lettering is stamped onto the deep-blue hardbound cover. Available from NITS.

Chemical Substances Information Network (CSIN)

The Chemical Substances Information Network (CSIN) developed by the Environmental Protection Agency and the Council for Environmental Quality, is well on its way to becoming a national chemical information system. R&D staf members and managers at Headquarters and the Centers may find it useful.

CSIN is a distributed network of coordinated online information systems designed to satisfy the need for infor mation concerning chemical substances. CSIN provides access to nomenclature and composition; properties; productio and commerce; products and uses; exposure, effects, studies and research; regulations, laws, and controls. Problems of data base administration and management, such as limited access and charging mechanisms, are being dealt with, and provide guidelines for data base managers. Potential users are federal and state agencies, industry, universities, and R&D institutions. Millions of records are available online.

For further information, call:

Dr. Sidney Siegel, Administrator
Chemical Substances Information Network
Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460
Telephone: 202-382-2256

Free NACA & NASA Documents in Paper Copy

NACA and NASA duplicates of unclassified reports (several hundred) are now available from Princeton University. Receiver to pay shipping charges. Contact Ms. Dee Hoelle, Engineering Librarian, Princeton University, Princeton, NJ 08544 (telephone: 609-452-3201) before July 15, 1983.

NASA/STI Surveys Completed

NASA's Scientific and Technical Information Branch has recently concluded two surveys of the relative value placed on NASA STI products and services. NASA Centers and contractors were queried. Since many products and services are without charge to system users, value-related feedback has to be simulated. A method was developed and tested to approximate this value; users in the NASA Centers and contractor organizations were asked to indicate the relative percentage value for each product, consisting the overall list of products as 100%.

Both Centers and contractors gave heavier relative value to major services. If STAR and IAA and their indexes are considered as one (as the published data base) compared to online RECON including NALNET, then approximately two-thirds of total relative value is allotted to major products. Approximately one-third is given all other products.

Highest preferences of Centers was for RECON, while contractor higher preferences were almost equal for RECON and STAR (20% and 19%). NASA STI users both at Centers and contractors, appeared to be signaling, both statistically and in intent, that they are going to depend more and more heavily upon online services.

The continuing bibliographies, SCAN (Selected Current Aerospace Notices, twice a month) and UPDATE (current awareness monthly) were low relative valued products for both Centers and contractors. UPDATE service (for NASA Centers and selected contractors for Hq., Langley, Ames, Lewis, and Goddard) has been expanded since the 1982 survey and would probably receive a higher rating if the survey were conducted today.

For further information, call John Wilson, (202) 755-3465.

COMPARATIVE VALUE OF NASA STI PRODUCTS

	NASA Centers		NASA Contractors
	Unweighted	Weighted*	
RECON Online Retrieval System	28	34	20
International Aerospace Abstracts (IAA)	6	5	9
Scientific and Technical Aerospace Reports (STAR)	10	5	19
Continuing Bibliographies	2	1	5
Special Publications	7	8	6
NALNET (NASA Library Network)	14	16	4
Microfiche	13	15	5
Selected Current Aerospace Notices (SCAN)	6	5	8
Scientific and Technical Aerospace Reports (STAR) Index	4	2	11
International Aerospace Abstracts (IAA) Index	3	2	6
Limited Scientific and Technical Aerospace Reports (LSTAR)	2	2	4
UPDATE (Monthly Current Awareness)	4	4	3

*Simple average for the centers and averages weighted according to number of scientists and engineers.

National Aeronautics and Space Administration

Washington, D.C.
20546

Official Business
Penalty for Private Use, $300

THIRD CLASS BULK RATE

Postage and Fees Paid
National Aeronautics and Space Administration
NASA-451

NASA

POSTMASTER: If Undeliverable (Section 158 Postal Manual) Do Not Return

Recent Translations

Lasers in Aircraft Construction, NASA TM-77131

Solar Activity and the Biosphere, NASA TM-77168

Space Research Conducted in the Soviet Union in 1980, NASA TM-77178

Motion Sickness, Its Prevention and Treatment, NASA TM-77181

Principles and Methods for Studying the Hydrological Cycle According to Aerospace Information, NASA TM-77190

Aerospace Methods in Geographical Research, NASA TM-77169

Salyut-7, NASA TM-77177 N83-20998

Turbulent Boundary Layer Around a Group of Obstacles in the Direction of Flow, NASA TM-77016 N83-21264

Recent Publications

Space Physiology and Medicine, NASA SP-447, GPO, $15.

Managing NASA in the Apollo Era: An Administrative History of the U.S. Space Program, 1958-1969, NASA SP-4102, GPO, $10.00

Modeling, Analysis, and Optimization Issues for Large Space Structures, NASA CP-2258, NTIS, 230 pages, $20.50.

NASA/MSFC FY-82 Atmospheric Processes Research Review, NASA CP-2259, NTIS, 241 pages, $20.50.

Tire Modeling, NASA CP-2264, NTIS, 248 pages, $20.50.

NASA Patent Abstracts Bibliography: Section 1 Abstracts, Section 2 Indexes, January 1983, NASA SP-7039 (22).

Management, an annual bibliography with indexes, March 1983, NASA SP-7500 (17).

NASA University Program Management Information System, FY 1982, NASA TM-85628.

The Bulletin is distributed to established users to keep them informed about NASA's scientific and technical information products and services.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland (Telephone: (301)859-5300 ext. 301) or Washington, D.C. (Telephone: (202)621-0301). Suggestions, material to be considered for inclusion, and comments may be directed to Philip F. Eckert (NASA STI Facility (301)621-0140) or John Wilson, NASA Headquarters, Code NIT-42, Washington, D.C. 20546 (Telephone: (202)755-3465).

Detach label with instructions for address or distribution change and mail to above address.

NASA
National Aeronautics and Space Administration
Scientific and Technical Information Branch

STI-RECON Bulletin & Tech Info News

June/July 1983

Answer to a Frequently Asked Question

Question: Who can access NASA/RECON?

Answer: NASA/RECON can be accessed by NASA and its contractors, other Federal agencies and their contractors, universities, and by other domestic organizations all who are assisting NASA in its mission. User charges are assessed. If you know of an organization that qualifies and needs access, advise them to write:

NASA
NIT-42/Buford Smith
Washington, D.C. 20546

Climate Data Added to DND

Descriptions of about 40 climate data bases have been added to the Directory of Numerical Databases now accessible online on NASA/RECON (as the Q File). These are included in the NASA Climate Data Catalog issued by the Information Management Branch of Goddard Space Flight Center. If you know of other catalogs of numerical data bases, send us a copy, or let us know about them, and we'll enter them into the DND.

Red Rowsome Citation

A plaque was presented at NASA Headquarters to Fay Rowsome, widow of Red Rowsome, who for over 20 years was NASA's Chief of Publications. Many of his former friends and associates shared in the presentation, recognizing his distinguished contributions to many outstanding and significant aeronautical and space publications.

Standardized Cosati Cataloging Explored

A week-long workshop beginning June 20 was held at NTIS to propose standards for cataloging report literature for the Defense Technical Information Center (DTIC), DOE Technical Information Center, Oak Ridge (TIC), NTIS, and NASA/STI Branch.

The cataloging at these agencies is based on guidelines developed by COSATI* in 1966 and revised by the Committee on Information Hang-Ups in 1978.** Variations from agency to agency in many instances are only minor. DTIC, DOE, TIC, and NASA/STI account for approximately 75% of the reports processed by Federal agencies. Implementation of standard cataloging guidelines could streamline processing for the agencies and make it easier for users to access citations.

Experience of the agencies in the last twenty years of processing reports for publication and entry into online systems has developed COSATI into a most efficient system, supplying the data elements the user needs.

*Committee on Scientific and Technical Information, Federal Council for Science and Technology.

**Guidelines for Descriptive Cataloging of Reports. A Revision of COSATI Standard for Descriptive Cataloging of Government Scientific and Technical Reports. March 1978 (CIH-78/01, PB-277 951, AD-A050 900).

25th Anniversary 1958-1983

NASA's Scientific and Technical Information System

Condensed from a recent presentation to NASA management by V. A. Wente, Chief of the Scientific and Technical Information Branch.

Those of us who have responsibility for NASA's STI System think it is the biggest, most agile, and useful collection of high-tech information in the world. The total system includes the STI Branch in Washington, the STI Facility at the Baltimore-Washington International Airport; the similar activity run with NASA's support by the AIAA in New York City; the online systems serving libraries at each of the NASA Centers and major contractor sites; and arrangements with foreign organizations such as the European Space Agency for inputting reports of member nations and quid pro quo additions to the data base.

Looking at the NASA-wide technical information system, we see that each Center's STI operations are organized differently. In all NASA and JPL, about 200 civil-service personnel and 350 support-service contractors work in technical information. They are supported altogether by funds in excess of $30-million annually.

At the heart of the system is the collection, a huge body of scientific and technical information collected from worldwide sources. It's big - currently containing over 2.2 million individual items. It's also dynamic, growing at the rate of 140,000 items per year. We have a number of quality-control and filtering methods to keep this massive data base from turning into a squirrel's nest. Principal elements in this data base are reports, journal papers, presentations, and books. If it's been put on paper or film, and if it's on NASA's mission and given any reasonable degree of release, we ought to have it.

What we do with this tremendous collection is what the system is all about. It's fairly easy to microfilm the documents and distribute them promptly to Centers and contractors. There are at least a dozen different ways we assemble and parcel out specific slices for individuals and groups of users. We issue two abstract journals, on alternating weeks, that announce and abstract new material, one for reports, and one for journals, papers, and books. Both of these journals, Scientific and Technical Aerospace Reports (STAR), and International Aerospace Abstracts (IAA), carry indexes that allow a user to search by subject, author, originating institution, contract number, or report number. They are produced rapidly and permit about as sophisticated search and retrieval as can be managed by ink on paper!

But these journals, even with a set of cumulated indexes, are really neither fast enough nor comprehensive enough to suit many NASA needs. Typically, when a searcher wants to know what's been done in a specific area, he wants to know a little more than simply what's been done recently. There is a great deal of serendipity in a really satisfactory search: it's a kind of random walk into unknown terrain. For this, nothing to date has proved better than our NASA/RECON, an online bibliographic search system of almost eerie responsiveness. NASA pioneered this system in the 1960's and 1970's; in the intervening period RECON has been steadily growing in responsiveness, speed, and precision. RECON currently responds to over 12,000 separate commands a day, from over 250 terminals and password holders.

One interesting part of the system is NALNET, containing a listing of journals and books held by each NASA Center library. This means that our libraries need not maintain costly duplicate collections for local use, but can arrange for rapid interlibrary loans of titles on demand. The books are integrated for searching purposes with the entire NASA data base.

There are countless by-product advantages of our methods of accessing the collection. To produce the big abstract journals, for example, we need standardization of citations, abstracts, and indexing. To re-sort this material into specialized products for special audiences, all it takes is some relatively uncomplicated software. It permits us to generate, at low cost and without

delay, continuing bibliographies in aeronautical engineering, aerospace medicine and biology, earth resources, energy, large space structures technology, and management. This material, sorted from the main input stream and presented for particular readerships, is acquired at virtually zero incremental cost and effort.

We also assist Headquarters offices in devising or producing their own special data bases and publications including the RTOP annual (ongoing NASA R&D projects), the yearly "green book" of university contracts and grants, the indexes of NASA management issuances, and a new online index for NASA safety reports. The Patent Bibliography is issued for the Patent Counsel. An online directory of numerical data bases was established in March 1983.

In summary, the NASA system, was begun over 20 years ago to serve a variety of users with a variety of information products, and continues to fulfill this role in an every improving manner.

Citations Listed Daily on NASA/RECON

A developmental service is being tested on NASA/RECON. Ten recent additions to the NASA STI data base can be viewed each day and full text ordered for those of interest. These items are directed toward NASA managers and are selected for pertinence in relation to NASA's mission, management, and foreign technology. A more selective weekly listing is being considered.

Procedures for accessing are simple:

Enter: BEGIN

Enter: QUERY EXECUTE NEWPUBS(NAHQ)

Enter: DISPLAY 1

We are looking for a name for the service, soliciting comments on its value and suggestions on how it can be improved. Call or write John Wilson.

Contracts and RTOP's Text Searchable

Recently added to NASA/RECON is the capability to text search NASA's ongoing research project descriptions - Research and Technology Objectives and Plans (RTOP) - and contract entries for the 1983 accession year and later on NASA/RECON. Managers as well as R&D staff will find it easier to find projects underway related to theirs.

NASA/RECON Training

Plans for RECON training through October 1982 are:

Advanced - Minneapolis Area

September 21-22, Wednesday & Thursday
Rosemount Inc.,
Eden Prairie, MN 55344
Hostess/Coordinator - Ms. Rosa Rummel
(612) 828-3716

Basic - Facility (BWI Airport, MD)

October 17-18, Monday & Tuesday
These sessions have been coordinated with the Annual DROLS Conference scheduled for October 19-21.

Those interested in attending the scheduled sessions are requested to inform Philip F. Eckert, (301) 859-5300.

NASA STI Managers Meet

NASA STI managers met June 16 and 17 at Headquarters. Conclusions and action requirements resulting from discussions will be implemented at the Centers and Headquarters. Included were:

- Headquarters STIB will serve as a NASA-wide clearinghouse for statements of work for STI support contracts.
- Centers will continue to issue annual bibliographies or lists of reports where they serve a useful purpose.

National Aeronautics and Space Administration

Washington, D.C.
20546

Official Business
Penalty for Private Use, $300

THIRD-CLASS BULK RATE

Postage and Fees Paid
National Aeronautics and
Space Administration
NASA-451

NASA

POSTMASTER: If Undeliverable (Section 158
Postal Manual) Do Not Return

- Center annual R&T reports should be issued in the TM series and will be included in the STI data base.
- Centers will review report control procedures for conformance with comment requirements; a 300-copy limit can be delegated to the Center.
- Contractor Reports will continue to be submitted directly to the STI Facility. Modification to the procurement regulation will be sought to add "after technical monitor approval."
- Handling of publication series will be reviewed by an intra-NASA group.
- Efforts will be made to improve acquisition of mission operations reports for the data base.
- The proposed NASA-wide Integrated Library System (ILS) will proceed, with bulk of costs anticipated for FY 1985.
- Possibility of issuing a series "Best of NASA Pathfinder" bibliographies will be explored, to be made available to new hires, contractors.
- Central procurement of full-text journals online will be explored.

These informal STI managers meetings provide a forum for continuing improvement of the NASA STI system.

NASA SCAN to Contain Abstracts

Commencing with SCAN 11 of May 1983, SCAN will include abstracts. Major and minor index terms have been dropped to compensate partially for the abstract, which requires more space. Semimonthly issuances will be continued. Review of the 186 topics is underway for possible upgrading of the profiles.

The Bulletin is distributed to established users to keep them informed about NASA's scientific and technical information products and services.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland (Telephone: (301)859-5300 ext. 301) or Washington, D.C. (Telephone: (301)621-0301). Suggestions, material to be considered for inclusion, and comments may be directed to Philip F. Eckert (NASA STI Facility (301)621-0140) or John Wilson, NASA Headquarters, Code NIT-42, Washington, D.C. 20546 (Telephone: (202)755-3465).

Detach label with instructions for address or distribution change and mail to above address.

NASA STI-RECON Bulletin & Tech Info News

National Aeronautics and Space Administration

Scientific and Technical Information Branch

Aug/Sept 1983

RECON Access Charges Modified

RECON charges have been modified slightly to improve flexibility and simplify calculations. There is no increase or decrease - just a different methodology. The new charges are as follows:

RECON Enrollment Fee	$60.00	To initiate service
Annual Maintenance Fee	60.00	Prorated for first year
Search Time	20.00	Connect Hour
Telenet	7.00	Connect Hour
Citation Printing	0.05	Each printed at NASA STI Facility

The annual maintenance fee is based on the calendar year, January 1 through December 31. Users who require that the annual maintenance fee be based on the federal fiscal year (or some other period of time) are requested to make special billing arrangements with Ms. Mary Jo Minnick at the Facility (301-859-5300, Ext. 222).

NASA to Make AIAA a Source for Information Data Base

NASA has arranged to make bibliographic data containing descriptions of more than 1.2 million reports and articles covering the world's aeronautical and space literature since 1962 available for leasing through the American Institute of Aeronautics and Astronautics (AIAA) located in New York. AIAA and NASA have shared in design and production of the data base since 1963 when NASA began supporting AIAA's preparation of International Aerospace Abstracts (IAA) and adding it to the NASA data base.

Regularly updated with about 70,000 document citations each year, this computer-readable data base is the most comprehensive aerospace data base available directly to United States organizations. It can be leased by domestic organizations from AIAA for access only within the United States. There are an estimated 200,000 end-users whose work can benefit from the sophisticated technology documented in this system.

The electronic data, to be known as the Aerospace Database, is a combination of the existing abstract periodicals, Scientific and Technical Aerospace Reports (STAR) and IAA. It will be licensed to online vendors and leased to domestic corporations for use in their in-house data base systems. With this new arrangement, all domestic organizations will have direct access to primary aerospace information, thereby supplementing the access already available for government and educational use through NASA's online system, RECON, and through NASA-supported Industrial Application Centers and State Technology Centers.

AIAA will undertake a national marketing effort, not only to reach information intermediaries, but to train scientists and engineers to search the data base directly.

New Type (T) Command

A new TYPE Command, to be operational in early October, will permit the dial-in user to type up to 100 citations (including abstracts). The user may order 10, 20, ...100 citations by these commands:

T 1/2/1-10
T 1/2/1-20
T 1/2/2/1-100

When the TYPE Command is implemented, the present software will be unable to "break in" to stop the typing. Software is being developed, however, to abort the typing upon command. The default (in event the range of items is omitted) for the TYPE Command is one citation.

The use of TYPE Command on the UTS-400 is anticipated.

NASA RECON/Training

NASA/RECON advanced training sessions were held at the Charles Stark Draper Laboratory, Inc. in Cambridge, Massachusetts on May 24 and 25 for 32 information specialists representing 14 organizations. The chief of the Scientific and Technical Information Branch and the staff at NASA Headquarters express their appreciation and gratitude to Ms. Cary Graham and Ms. Betty Edwards for their top performance as hostesses for the training group. Mr. Van A. Wente also relays NASA's appreciation to Ms. Hope Coffman and other officials of the Draper Laboratory.

Plans for RECON training through October 1983 are:

Advanced - Minneapolis Area

September 21-22, Wednesday & Thursday
Rosemount Inc., Eden Prairie, MN 55344
Hostess/Coordinator - Ms. Rosa Rummel
(612) 828-3716

Basic - Facility (BWI Airport, MD)

October 17-18, Monday & Tuesday

These sessions have been coordinated with the Annual DROLS Conference scheduled for October 19-21.

Those interested in either or both of the scheduled sessions are requested to inform Mr. Philip F. Eckert or Ms. Joanne Purdy of their plans:
(301) 859-5300.

ESDU Items in STAR

Documents issued by the Engineering Science Data Unit are now being included in the STI data base and announced in STAR. ESDU Data Items cover a wide range of carefully prepared and vigorously monitored engineering guides, standards, calculations, design criteria, and reference materials.

The N-70000 and X-70000 Series

The N-70000 and X-70000 series are the third and fourth NASA series to be described in the NASA/RECON Bulletins.

The N-70000 (with aliases 7N and N70K) series consists of older unclassified, unlimited materials or materials for administrative reasons considered unsuitable for announcement in an abstract journal, viz. STAR. As a general rule, N-70000 candidates for the data base are one and a half or more years old. These documents are cataloged and subject indexed on two levels - major terms and minor terms. No abstracts are entered into the data base. All titles from 1964 to data are retrievable by "text" search using mnemonics UTP or ATL.

The X-70000 (with aliases 7X and X70K) series consists of older unclassified, limited materials or classified materials considered unsuitable for announcement in an abstract journal, viz. LSTAR. As with the 7N series, documents in the 7X series are cataloged and indexed on two levels of thesaurus indexing. Similarly, no abstracts are entered into the data base. All titles from 1964 to date are likewise retrievable by "text" search using the mnemonics UTP or ATL.

The 7N and 7X series, containing 167,000 and 164,000 accessions, respectively, on January 1, 1983, are extremely valuable resources that complement the recently acquired materials, which are used for STAR and LSTAR input.

As a reminder, an "N" in an accession number connotes unclassified, unlimited or U². An "X" in an accession number signifies a limitation, such as unclassified, limited (limited to certain users) or UL; it could also mean that the document is security-classified.

Earlier descriptions of the IAA or A10K series and the STAR or N10K series are contained in NASA/RECON Bulletins 82/12 (Dec. 1982) and 83/1 (Jan. 1983), respectively. New recipients of this publication may obtain copies of the earlier bulletins by writing to the Facility, Attn: Ms. Joanne Purdy.

Second Computer for Facility

The Facility has recently installed an additional computer - an IBM-4341-L01. The new mainframe is required for a new input processing system and will be loosely coupled with the existing IBM-4341-M02 and its peripherals. Specific areas of improvement include:

- Online Duplicate Checking
- Interactive Machine Edit and Validation of Online Data Entry
- Online Access to Authority Files
- Interactive Abstracting, Indexing, and Cataloging
- Online Support for Processing Machine-Readable Data
- Subject Switching (e.g., DTIC & DOE Term Conversion to NASA Subject Thesaurus Terms)
- Improved Production Throughput for NALNET
- Capability for RECON to Search In-Process Data
- 100% Compatible CPU Backup for RECON
- Expanded Backup for NASA Headquarters Computer Center
- Resources for NASA-Wide Intergrated Library System

Deposit Accounts Available

Private concerns, universities, and government agencies which want to count on the continued availability of funds intended for scientific & technical information purposes may wish to open a NASA/RECON Deposit Account at the Facility. Any amount may be used in such accounts to provide for future online information service needs. Funds deposited now will continue to be available when needed, regardless of the advent of a new fiscal year. For further information, contact Ms. Mary Jo Minnick at the Facility: (301) 859-5300, ext. 222.

New FAA Paper on Lightning

A new conference publication has just been released by the FAA, entitled International Aerospace and Ground Conference on Lightning and Static Electricity. The 83 related papers were published as report number DOT/FAA/CT-83/25 in June 83. The publication is currently undergoing processing at the Facility as an analytic and will be announced in STAR 19 on October 8, 1983. It will not be microfiched and will not be available for sale from NTIS. It is available for $25.00 payable to IALC-8, from M. Glynn, FAA Technical Center, ACT-340, Atlantic City Airport, NJ 08405.

S&T Publications NMI Issued

A NASA Management Instruction, NMI 2220.13B - Control of the Production and Distribution of Scientific and Technical Publications - has been issued that defines the control system for scientific and technical publications, one of three control systems addressed in the umbrella NMI issued last year, NMI 2214.1 - Control of the Production and Distribution of NASA Publications and Audiovisual Products. The two NMI's were issued in response to a call for cost efficiency in government publications practices. Centers have reviewed their own control systems to determine if they are up to date. When Headquarters has completed its review, authority for control of the various formal series reports will be redelegated as appropriate. However, control of Special Publications, because of the cost and the effort involved in the production, will be retained by the Director of the Logistics Management and Information Programs Division. The publications covered by the NMI's include Special Publications, Reference Publications, Conference Publications, Technical Memorandums, Technical Papers, and Contractor Reports.

National Aeronautics and Space Administration

Washington, D.C.
20546

Official Business
Penalty for Private Use, $300

THIRD-CLASS BULK RATE

Postage and Fees Paid
National Aeronautics and
Space Administration
NASA-451

NASA

POSTMASTER: If Undeliverable (Section 158 Postal Manual) Do Not Return

Recent Publications

User's Guide for the Solar Backscattered Ultraviolet (SBUV) and the Total Ozone Mapping Spectrometer (TOMS) RUT-S and RUT-T Data Sets: Oct. 31, 1978 to Nov. 1, 1980,
N83-28828 Iss 17 Cat 47 NASA-RP-1112
135 pages, NTIS, $14.50

Radiometer Requirements for Earth-Observation Systems Using Large Space Antennas
N83-28410 Iss 17 Cat 35 NASA-RP-1101
44 pages, NTIS, $8.50

Rolling-Element Bearings,
N83-27214 Iss 16 Cat 37 NASA-RP-1105
61 pages, NTIS, $10.00

A NASA High-Power Space-Based Laser Research and Applications Program.
N83-27200 Iss 16 Cat 36 NASA-SP-464
46 pages, NTIS, $8.50

Large Space Antenna Systems Technology, Part 1,
N83-26853 Iss 16 Cat 15 NASA-CP-2269-Pt-1
596 pages, NTIS, $41.50

Large Space Antenna Systems Technology, Part 2,
N83-26879 Iss 16 Cat 15 NASA-CP-2269-Pt-2
469 pages, NTIS, $34.00

Summary Proceedings of a Wind Shear Workshop,
N83-25265 Iss 14 Cat 47 NASA-CP-2270
20 pages, NTIS, $7.00

The 17th Aerospace Mechanisms Symposium,
N83-24881 Iss 14 Cat 39 NASA-CP-2273
390 pages, NTIS, $29.50

Aviation Gasolines and Future Alternatives,
N83-22442 Iss 12 Cat 28 NASA-CP-2267
164 pages, NTIS, $16.00

Small Transport Aircraft Technology,
N83-20931 Iss 11 Cat 05 NASA-SP-460
118 pages, GPO, $5.00

Modeling, Analysis, and Optimization Issues for Large Space Structures,
N83-18819 Iss 09 Cat 15 NASA-CP-2258
222 pages, NTIS, $19.00

Joint University Program for Air Transportation Research, 1980,
N83-18637 Iss 09 Cat 01 NASA-CP-2176
144 pages, NTIS, $14.50

Managing NASA in the Apollo Era,
N83-18551 Iss 08 Cat 81 NASA-SP-4102
359 pages, GPO, $10.00

The Bulletin is distributed to established users to keep them informed about NASA's scientific and technical information products and services.

RECON operational problems may be directed to the RECON Coordinator at the NASA Scientific and Technical Information Facility in Baltimore, Maryland (Telephone: (301)859-5300 ext. 301) or Washington, D.C. (Telephone: (202)621-0301). Suggestions, material to be considered for inclusion, and comments may be directed to Philip F. Eckert (NASA STI Facility (202)621-0140) or John Wilson, NASA Headquarters, Code NIT-42, Washington, D.C. 20546 (Telephone: (202)755-3465).

Detach label with instructions for address or distribution change and mail to above address.

NASA STI-RECON Bulletin & Tech Info News

National Aeronautics and Space Administration

Scientific and Technical Information Branch

October 1983

Trial Period for Indexed Searches

On a three month trial basis, the NASA STI Facility will provide indexes for RECON searches when requested by users. This experiment will run from November 1, 1983, through January 31, 1984, and use existing capabilities.

NASA users will not be charged for the service. Non-NASA users will be charged $0.05 per citation indexed. Indexing will be available for search results of 100 or more citations made on the primary data base (1968 to date).

Search results will be held until the index is ready, so that they can be bound and mailed together. If search results are especially bulky, the index can, of course, be bound separately.

The Facility will keep a record of the users' names and addresses who request indexes during the trial period so that followup analysis may be done.

Attention Telenet Users

On September 26, 1983, RECON began using an enhanced interface to the Telenet network. This is being done in an effort to curtail escalating Telenet costs while accommodating more users at the same time.

The new interface requires a slightly different signon procedure. You should have already received new instructions from the Facility. If not, or should you have any questions concerning the Telenet system, please feel free to call the RECON Coordinator at (301) 621-0301.

Results of the trial will be used by NASA to evaluate whether or not to make any required software modifications and to continue or discontinue offering this service.

If you are interested in having an index prepared for a search, contact Philip F. Eckert (202) 621-0140 before the search is run.

Pioneer Venus Special Publication

Pioneer Venus by Richard O. Fimmel, Lawrence Colin, and Eric Burgess, provides a comprehensive view of a planet and a pioneering mission. In December 1978, instrumented unmanned spacecraft reached Venus and began sending to Earth a treasure-trove of data about our near neighbor. The book, published by Ames and the STI Branch, narrates the history of the NASA-Ames program and describes in detail the spacecraft used and the scientific experiments performed. In addition, it discusses the Soviet Venera program that brought spacecraft to Venus at the same time our craft arrived.

The text is technical in nature. Extensive bibliography and explanatory appendixes on Venus and the mission team are included. It is liberally illustrated with photographs and diagrams.

Copies of NASA SP-461 (N83-30340) may be obtained for $11.00 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

25th Anniversary 1958-1983

LSTAR Series

The LSTAR Series (the fifth to be described in the STI-RECON Bulletins) has several aliases - X10K, X-10,000, and CSTAR.

The LSTAR is an acronym for Limited STAR. LSTAR announces current unclassified reports prepared by NASA and its contractors and grantees that are subject to availability limitations, and security-classified reports of NASA and NASA-supported research. Security-classified reports announced in LSTAR bear either CONFIDENTIAL or SECRET classifications, which is indicated as part of the citation. While the reports themselves may be classified, LSTAR contains no classified information.

The Series was originally called CSTAR, meaning Classified STAR. Its accession population was quite heavy in the middle and late sixties and in 1970 because it was comprised mostly of unclassified, limited distribution (UL) and security classified reports from DoD and from foreign sources. Monthly abstract journals for this series were classified for the years 1962 through 1971.

In 1974, the first volume of LSTAR was published as an unclassified abstract journal. It consisted of 767 limited distribution and security classified reports that were processed into the data base during the last few months of 1972 and all of 1973. With the exception of the accession year of 1976, all reports accessioned into the LSTAR data base have averaged about 300 per year. The 1892 reports contained in 1976 subset were accessioned to produce ESA SP-1006, Index of ELDO Publications. (ESA = European Space Agency; ELDO = European Lancher Development Organization.)

From 1974 through 1982, the LSTAR abstract journal was published on a quarterly basis. In 1983, the journal was temporarily suspended. LSTAR accessions, as a result of the suspension, are added monthly to the NASA data base instead of quarterly. LSTAR accessions are retrievable on RECON through major and minor level indexing. The abstract family is text-searchable from 1975 to date using the mnemonics TX and AX; the title family is also text-searchable, but from 1962 to date using the mnemonics ATL and UTP.

The total population of LSTAR accessions on January 1, 1983 was 82,500 (35,000 in the Primary Data Base and 47,000 in the Alternate Data Base).

New Remote Sensing Paper

A transcription of the full Remote Sensing Issues Panel Discussion from the 4th Geosat Workshop, "Remote Sensing Frontiers" held in Flagstaff, Arizona in June 1983, is now available from The Geosat Committee.

This document contains important information on the current issue of commercializing the Landsat program as well as on data distribution, high-risk civil R&D, and the "Open Skies" policy.

Please contact The Geosat Committee, 153 Kearny, Suite 209, San Francisco, CA 94108 (415) 981-6265, for information on how to order.

EXPAND Quicker

The quick and cost effective way to expand terms, authors, reports, etc. is to add *1*1* to the end of the term being expanded. This will display three terms: one before and one after the desired term as shown below:

```
ENTER: X EFFICIENCY*1*1*
  EXPAND ST/EFFICIENCY
REF    DESCRIPTOR
E01   ST/EFFERVESCENCE
E02  -ST/EFFICIENCY
E03   ST/EFFLUENTS
```

You can use other combinations of numbers and vary your display. This technique saves you from waiting for the expansion to be fully displayed.

NASA Special Publications, Reference Publications, and Conference Publications

How are These Publications Related?

In 1977 NASA modified the "Special Publications" family by dividing it into three parts. Today there are NASA Special Publications (SP's), NASA Reference Publications (RP's), and NASA Conference Publications (CP's). Special Publications coverage includes scientific summaries of mission results, scientific photography, atlases, and histories and chronologies.

Reference Publications coverage includes technical handbooks and manuals, critical tables, monographs, and scientific and technical textbooks.

Conference Publications coverage includes symposia, workshops, seminars, and other professional meetings sponsored by NASA.

As a general rule, SP's and RP's are of special quality and are considered to have especially long-term usefulness, while CP's present new information.

New Catalog Available

The long-awaited Records of Achievement - NASA Special Publications has finally been published and distributed. Its report number is NASA SP-470, and it is free from both the Facility and NTIS.

The new publication contains a brief description of NASA's Special Publications, Conference Publications, Reference Publications and a short narrative of some of NASA's achievements during its twenty-five years of existence. The citations are arranged in ascending order by class (SP, RP, and CP). In addition, publications are indexed under NASA's ten broad categories and by specific category within each broad category. The accession years for the publication span the period 1962 through July 1983.

```
                    ①
                    ↓
ENTER:Q EXECUTE NASAPUBS(ID43)
NASAPUBS EXECUTION STARTS

ENTER:SS <-------------------------------②
 SET  REC.   OCC. DESCRIPTION OF SET
  1   114     114 RN/NASA-SP-1//NASA-SP
  2   289     289 RN/NASA-SP-2//NASA-SP
  3   367     367 RN/NASA-SP-3//NASA-SP
  4   177     177 RN/NASA-SP-4#//NASA-S
  5   266     266 RN/NASA-SP-5#//NASA-S
  6    16      16 RN/NASA-SP-6//NASA-SP
  7   681     681 RN/NASA-SP-7#//NASA-S
  8   222     222 RN/NASA-SP-8#//NASA-S
  9     0       0 RN/NASA-SP-9#//NASA-S
 10   390     390 RN/NASA-CP-9#//NASA-C
 11   155     155 RN/NASA-RP-1#//NASA-R
 12  2525    2525 1+2+3+4+5+6+7+8+9+10+
ENTER:Q DISPLAY NASAPUBS(ID43)<----------③
        LIST OF COMMANDS IN NASAPUBS
#1  S  RN/NASA-SP-1:
#2  S  RN/NASA-SP-2:
#3  S  RN/NASA-SP-3:
#4  S  RN/NASA-SP-4:
#5  S  RN/NASA-SP-5:
#6  S  RN/NASA-SP-6:
#7  S  RN/NASA-SP-7:
#8  S  RN/NASA-SP-8:          ④
#9  S  RN/NASA-SP-9:          ↓
#10 S  RN/NASA-CP-:
#11 S  RN/NASA-RP-:
#12 C  #1-#11/+
ENTER:SE TELECOMMUNICATION+ATL/TELECOMMUNICATION:+TX/TELECOMMUNICATION:
 13   6960   6960 ST/TELECOMMUNICATION
 14   1109   1385 ATL/TELECOMMUNICATION                                ATL/TELEC
OMMUNICATIONS                  ROOT/TELECOMMUNICATION
 15   1387   1758 TX/TELECOMMUNICATION                                 TX/TELECO
MMUNICATIONS                   ROOT/TELECOMMUNICATION
 16   8804   9822 13+14+15
ENTER: C 12AND16 <-----------
 17     12     12 12AND16
ENTER: SF RN,UTL;ACC <-------⑥
FORMAT-DEFINITION ACCEPTED.
ENTER: D 17/4 <--------------⑦
        DISPLAY 17/4/1-9 OF 12
RPT9: NASA-CP-2048   UTTL: THE MSFC/UAH DATA MANAGEMENT SYMPOSIUM
      78N74659
RPT9: NASA-RP-1088-VOL-4 REPT-81F9834-VOL-4   UTTL: ATS-6 ENGINEERING
      PERFORMANCE REPORT.  VOLUME 4:  TELEVISION EXPERIMENTS
      82N16159
RPT9: NASA-RP-1089-VOL-3 REPT-81F9834-VOL-3   UTTL: ATS-6 ENGINEERING
      PERFORMANCE REPORT.  VOLUME 3:  TELECOMMUNICATIONS AND POWER
      82N16149
RPT9: NASA-CP-2196   UTTL: OFFICE OF SPACE TERRESTRIAL APPLICATIONS
      (OSTA)/APPLICATIONS DATA SERVICE (ADS) DATA SYSTEMS STANDARDS
      82N15995
RPT9: NASA-CP-2159 E-662   UTTL: SPACECRAFT TRANSMITTER RELIABILITY
      81N16119
RPT9: NASA-RP-1027-VOL-2 L-12887-VOL-2   UTTL: VIKING '75 SPACECRAFT DESIGN AND
      TEST SUMMARY.  VOLUME 2:  ORBITER DESIGN
      81N15191
RPT9: NASA-SP-5972(05)   UTTL: COMMUNICATIONS TECHNIQUES AND EQUIPMENT:  A
      COMPILATION
      76N22425
RPT9: NASA-SP-5972(07)   UTTL: ELECTRONIC CIRCUITS:  A COMPILATION
      76N28372
RPT9: NASA-SP-313 LC-72-600216   UTTL: SPACE FOR MANKIND'S BENEFIT
      73N13029
RPT9: NASA-SP-5958(01)   UTTL: ELECTRONIC CIRCUITS FOR COMMUNICATIONS SYSTEMS:
      A COMPILATION
      72N19286
RPT9: NASA-SP-151   UTTL: RELAY PROGRAM FINAL REPORT
      69N21865
RPT9: NASA-SP-7089/03/   UTTL: LASERS AND MASERS  A CONTINUING BIBLIOGRAPHY WITH
      INDEXES, APR. - DEC. 1967
      68N29438
```

Searching SP's, RP's and CP's

The stored search NASAPUBS allows you to search the NASA SP/RP/CP family of publications with relative ease. The sample search above matches these publications against "Telecommunication."

The numbers in the sample search correspond to: 1 QUERY EXECUTE, 2 SET STATUS, 3 QUERY DISPLAY, 4 SEARCH EXPRESSION, 5 COMBINE, 6 SPECIFY FORMAT, and 7 DISPLAY.

National Aeronautics and Space Administration

Washington, D.C.
20546

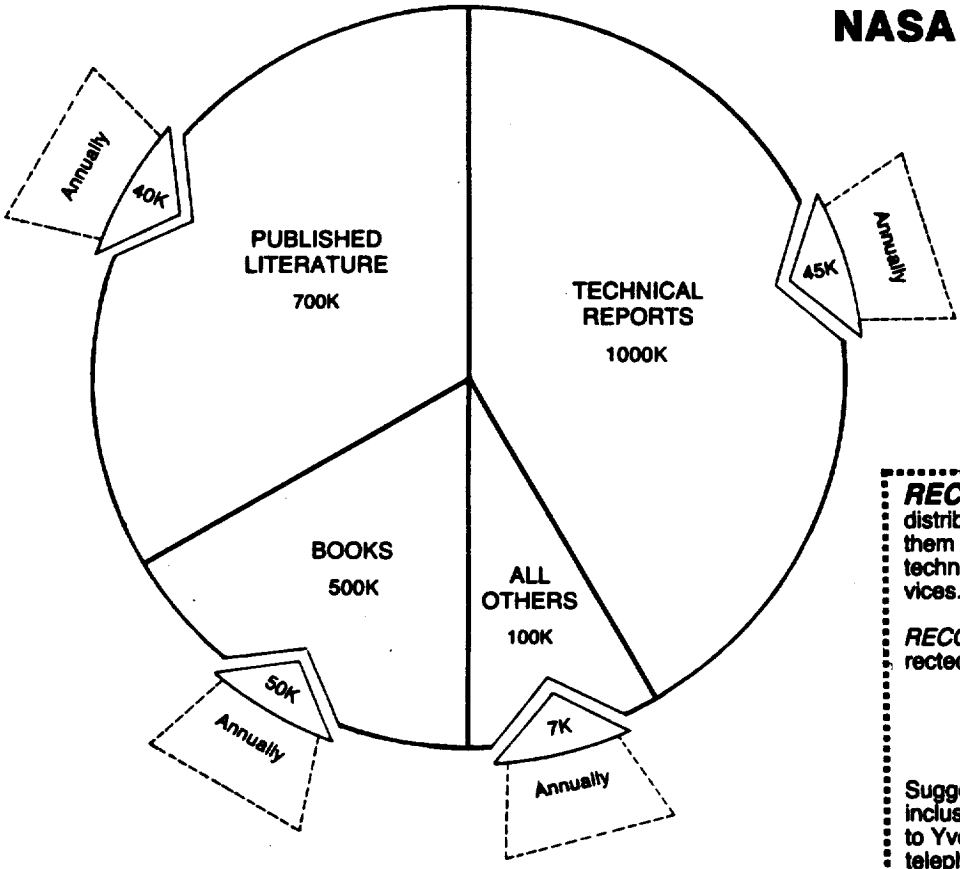
Official Business
Penalty for Private Use, $300

THIRD-CLASS BULK RATE

Postage and Fees Paid
National Aeronautics and
Space Administration
NASA-451

NASA

POSTMASTER: If Undeliverable (Section 158 Postal Manual) Do Not Return



NASA STI DATA BASE

2.3 M RECORDS

To the left you see a representation of the current NASA STI Database. Included are technical reports, published literature, books, and other materials. All together, current holdings are over the 2 million document mark.

RECON Bulletin and STI News is distributed to established users to keep them informed about NASA's scientific and technical information products and services.

RECON operational problems may be directed to the *RECON* Coordinator at:

NASA STI Facility
P.O. Box 8757
B.W.I. Airport, Md. 21240

Suggestions, material to be considered for inclusion, and comments may be directed to Yvonne Turner at the above address or telephone (301)621-0264, or John Wilson, NASA Headquarters, Code NIT-42, Washington, D.C. 20546, (202)755-3465.

Detach label with instructions for address or distribution change and mail to: ATTN User Services Division, STIF.

Contributors to this issue of the Bulletin include: R. Buchan, P. Eckert, M. Moriarty, Y. Turner, J. Wilson.

National Aeronautics and Space Administration

Scientific and Technical Information Branch

STI-RECON Bulletin & Tech Info News

November 1983

Online Searching Courses to be Developed

There is a growing realization that recent college graduates in scientific and engineering disciplines do not have the experience, skills, and motivation necessary to take full advantage of existing automated systems which provide capabilities for searching and retrieving scientific and technical information.

Southern University (SU), Baton Rouge, LA, is being funded by NASA to develop and evaluate a set of transportable, college-level courses to educate science and engineering students in the effective use of these systems, and, in particular, in the use of the NASA RECON system. Courses to be developed include a full semester course, full quarter course, a six-week workshop, and a two or three day workshop.

These courses will include access via computer terminal to NASA/RECON online bibliographical system and at least one other online system building search strategies based on analysis of the data bases available and knowledge of the vocabularies.

They will also include instruction in the published resources that provide access to the NASA scientific and technical information data base, as well as those of other federal and commercial agencies, including Departments of Defense and Energy, National Technical Information Service, Libraries of Medicine and Agriculture, Lockheed Information Service, and Bibliographic Retrieval Services. Complete curricula support materials will be prepared for instructors and students.

Graduates from colleges and universities sponsoring such courses will have gained the experience, skills, and motivation necessary for the effective use of automated information support systems. Hence, they would be better prepared to work in R&D. Such prior experience should have an early effect on the quality of research conducted by incoming employees into the federal sector and their contractors, and should reduce required training, thus increased productivity of the R&D of Federal programs can be expected.

The project will take two years to complete. It will then be followed by another two or three years of introducing the curricula developed into university and college undergraduate science and engineering programs nationwide.

SU will be assisted by Southwestern Louisiana University. NASA's Office of Equal Opportunity and the Scientific and Technical Information Branch will share in funding the project.

RECON Training

NASA/RECON Training has been tentatively scheduled as follows:

February 7 - 8, 1984 -- Basic training at the Facility, BWI Airport, MD.

March 13 - 14, 1984 -- Advanced Training at the Facility, BWI Airport, MD.

For further information, contact Philip F. Eckert, (202) 621-0140.

25th Anniversary 1958 1983

The W and K Series Described

The W and K Series are the sixth and seventh NASA accession series described in the RECON bulletins.

The W70K Series was implemented in 1971 for an annual publication entitled, NASA Research and Technology Objectives and Plans (RTOP). RTOP is an annual guide to NASA-sponsored research in progress. It is a summary, with indexes, of all Research and Technology Objectives and Plans submitted by NASA Centers to the NASA Headquarters Office of Aeronautics and Space Technology for management review. The items are not documents.

The items are cataloged, indexed (on one level), and are text-searchable (titles and abstracts) from 1982 to date. As of July 1983, the total historical RTOP population was 9,611. All of these are available on RECON. However, there are only 678 active RTOP items.

The K10K Series was implemented in 1972 and is currently called the R&D Contract Search File. Containing information about NASA R&D Contracts, Grants, and Orders, the file is available to all RECON users and is a supplement to the W70K Series. Again, the items are not documents.

The items are cataloged and indexed on one level and the titles are text-searchable from 82K10134 and later. The K10K Series document population in July 1983 was 17,600.

It is useful to search these series if you are interested in new trends or future developments. Although the citations are not for documents, they can identify for you corporate sources and project leaders doing new work in a given field.

User Group to be Formed

Recent expansion in access to NASA/RECON has resulted in different types of organizations coming onto the system. Also, planned development of EASY/RECON could be assisted by advice from users.

To gather these ideas, a RECON User Group is being formed. The first meeting of the Group is planned for February or March 1984. It is anticipated that 6 to 10 members of the group would serve as a liaison committee to work with the NASA Scientific and Technical Information Branch (STIB) to focus and channel suggestions and problems.

We welcome your ideas on how such a group should be organized or how it should function. Write or call John Wilson (202-755-3456 or FTS 755-3465) at NASA STIB.

Price of Information

Annually, the Library Journal surveys American periodical subscription prices. This year's analysis covers 3,671 titles. The average subscription price for an American title is $50.23. The top five average subscription categories are all in the sciences:

Category	Average Price	Number of Titles
Chemistry and Physics	$207.94	167
Medicine	112.72	177
Mathematics	97.26	228
Engineering	73.18	265
Zoology	70.74	93

Under Science and Technology Serial Services (the group where STAR would be placed), the average price was $270.94 covering 281 titles. A complete tally of all periodicals and serial services can be found in the September 1, 1983 issue of Library Journal, pages 1659 through 1662.

What's in a Name? (or an Acronym?)

Do you ever feel like you're living in the age of acronyms? So often in our reading or as we receive requests to research a topic, part of all of a concept is expressed in acronyms. Some become familiar, like NASA, but others elude our reference guides or our own ingenuity.

RECON to the rescue. By conducting a text search of all titles and the text, then combining sets, you can usually find a translation of the acronym and a description of the project or concept.

For instance, suppose you come across "QCGAT" -- what do you do?

```
S ATL/QCGAT
  1    19   19 ATL/QCGAT
S TX/QCGAT
  2    13   20 TX/QCGAT
C 1+2
  3    23   39 1+2
D 3
```

```
84A48-2148   ISSUE 24   PAGE 4127   CATEGORY 7   RPTS: AIAA PAPER 84-2340
84/ 6 00   16 PAGES   UNCLASSIFIED DOCUMENT
UTTL: TURBOMACHINERY NOISE STUDIES OF THE AIRESEARCH QCGAT ENGINE WITH INFLOW
CONTROL -- ACOUSTIC PERFORMANCE
AUTH: A/CHAPPLE, J. G.;  B/HOMYAK, L.;  C/EMPULSKI, D. D.   PAA: C/(NASA. LEWIS
RESEARCH CENTER, CLEVELAND, OH)
CORP: NATIONAL AERONAUTICS AND SPACE ADMINISTRATION. LEWIS RESEARCH CENTER.
CLEVELAND, OHIO.
AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS. AEROACOUSTICS
CONFERENCE, 7TH, PALO ALTO, CA, OCT. 8-7, 1984. 16 P.
MAJS: /*AIRCRAFT ENGINES/*ENGINE CONTROL/*ENGINE NOISE/*INLET FLOW/*QUIET ENGINE
PROGRAM/*TURBOFAN ENGINES
MINS: / ACOUSTIC PROPERTIES/ AERODYNAMIC CHARACTERISTICS/ CONTROL EQUIPMENT/
ENGINE DESIGN/ ENGINE TESTS/ GENERAL AVIATION AIRCRAFT
ABA: D.F.
ABS: THE AIRESEARCH QUIET CLEAN GENERAL AVIATION TURBOFAN ENGINE WAS TESTED ON
A VERTICAL LIFT FAN FACILITY TO MEASURE THE ACOUSTIC PERFORMANCE OF TWO
INFLOW CONTROL DEVICES (ICD) OF SIMILAR DESIGN, AND THREE INLET LIPS OF
DIFFERENT EXTERNAL SHAPE. FAR-FIELD DIRECTIVITY PATTERNS CALCULATED BY
EXISTING ANALYSES WERE COMPARED WITH THE MEASURED FAN FUNDAMENTAL BLADE
PASSING FREQUENCY (BPF/F1) AND BROADBAND DATA. INSTALLING AN ICD ON AN
ENGINE WITH HARDWALL DUCTS REDUCED THE BPF(F) TONE EVERYWHERE IN THE
FAR-FIELD. WHEN THE ICD WAS INSTALLED ON AN ENGINE WITH ACTIVE ACOUSTIC
PANELS, TONE REDUCTION IN THE FORWARD QUADRANT WAS COMPARABLE TO THAT IN
THE HARDWALL TESTS; IN THE AFT QUADRANT, HOWEVER, TONE NOISE WAS
ATTENUATED BY THE LARGE ACOUSTIC PANELS IN THE BYPASS DUCT TO SUCH A
DEGREE THAT THE ICD HAD LITTLE EFFECT. TESTS TO COMPARE PERFORMANCE OF
ICDS WITH HARDWALL INLET DUCTS SHOWED ONLY MINOR DIFFERENCES IN THE BPF(F)
DIRECTIVITY PATTERNS. WHILE BROADBAND NOISE WAS THE SAME FOR BOTH
FORWARD-QUADRANT BPF(F) AND BROADBAND DIRECTIVITY PATTERNS WERE FOUND TO
BE SIMILAR FOR THE INLET LIPS TESTED WITH A HARDWALL INLET DUCT, AT HIGH
FAN SPEEDS. HOWEVER, THE SHAPE OF THE ANALYTICAL MULTIMODAL TONE PATTERN
FROM THE EXHAUST NOZZLE WAS FLATTER THAN THE MEASURED PATTERNS. THE
SOURCES OF LOBES FROM SEVERAL PROPAGATING SINGLE MODES FOUND IN THE
FORWARD-QUADRANT BPF(F) DATA WERE ATTRIBUTED TO ROTOR/STRUT INTERACTION
AND THE ROTOR-ALONE PRESSURE FIELD.
```

In the very first citation displayed, you find Quiet Clean General Aviation Turbofan in the abstract.

What about HIRIS? Follow the same process and your display should look like the following:

```
S ATL/HIRIS
  4    5    5 ATL/HIRIS
S TX/HIRIS
  5    9   13 TX/HIRIS
C 4+5
  6    9   18 4+5
D 6
```

```
93A24048   ISSUE 18   PAGE 1423   CATEGORY 35   RPTS: AD-A128358
AFGL-TR-83-0119   83/04/01   14 PAGES   UNCLASSIFIED DOCUMENT
UTTL: ROCKETBORNE CRYOGENIC (48 K) HIGH-RESOLUTION INTERFEROMETER SPECTROMETER
FLIGHT (HIRIS) - AURORAL AND ATMOSPHERIC IR EMISSION SPECTRA
AUTH: A/STAIR, A. T., JR.;  B/PRITCHARD, J. ;  C/COLEMAN, T. ;  D/BOMME, D.;
E/WILLIAMSON, W.;  F/ROGERS, D.;  G/RAWLINS, W. T.   PAA: A/(USAF
GEOPHYSICS LABORATORY, BEDFORD, MA);  B/(IDEALAB, INC., FRANKLIN, MA);
C/(BARTLETT SYSTEMS, INC., WOODY CREEK, CO);  E/(HONEYWELL ELECTRO-OPTICAL
CENTER, LEXINGTON, MA);  F/(FAA, WASHINGTON, DC);  G/(PHYSICAL SCIENCES,
INC., ANDOVER, MA)
APPLIED OPTICS, VOL. 22, APR. 1, 1983, P. 1056-1069. ARPA-SUPPORTED
RESEARCH.
MAJS: /*ATMOSPHERIC SOUNDING/*AURORAL SPECTROSCOPY/*CRYOGENIC COOLING/*EMISSION
SPECTRA/*INFRARED SPECTROMETERS/*ROCKET-BORNE INSTRUMENTS
MINS: / HIGH RESOLUTION/ MICHELSON INTERFEROMETERS/ ROCKET SOUNDING/ SPECTRAL
RESOLUTION/ SPECTRUM ANALYSIS
ABA: N.B.
ABS: THE DEVELOPMENT AND RESULTS OF THE ROCKETBORNE LIQUID-HELIUM-COOLED
INFRARED SPECTROMETER (HIRIS) ARE EXAMINED. THE MICHELSON INTERFEROMETER
SPECTROMETER COOLED TO 48 K OBTAINED DATA FOR AN IBC CLASS III AURORA ON 4
APRIL 1976. THE SENSOR OF THE SPECTROMETER COVERED THE SPECTRAL RANGE
455-2500 WAVE NUMBERS (4-22 MICRONS) WITH A SPECTRAL RESOLUTION OF 1.8/CM
AND AN NESR OF 5 X 10 TO THE -12TH W/(SQ CM SR/CM) AT 1000/CM. AURORAL
EMISSIONS OF CO2(NU-3) AT 4.24 MICRONS AND NO(DELTA NU = 1) AT 5-6 MICRONS
WERE OBSERVED, AS WELL AS AURORAL ENHANCEMENT FOR CO2(NU-3) AT 9.6 MICRONS
AND CO2(NU-2) AT 15 MICRONS. IN ADDITION TO AURORAL ENHANCEMENTS,
VIBRATION-ROTATION SPECTRA WERE OBTAINED FOR THESE BANDS WITH A FIDELITY
ADEQUATE TO MODEL THE NONEQUILIBRIUM RADIATIVE STATE DISTRIBUTIONS OVER A
70-125 KM ALTITUDE RANGE.
```

And so your find that HIRIS is High-Resolution Interferometer Spectrometer.

Try one more. What does IFFC stand for?

```
S ATL/IFFC
  7    4    4 ATL/IFFC
S TX/IFFC
  8   17   44 TX/IFFC
C 7+8
  9   18   48 7+8
D 9
```

```
83A28700   ISSUE 11   PAGE 1528   CATEGORY 4   83/04/11   7 PAGES
UNCLASSIFIED DOCUMENT
UTTL: INTEGRATED SYSTEMS EVALUATED ON F-15
AUTH: A/ROPELEWSKI, R. R.
AVIATION WEEK AND SPACE TECHNOLOGY, VOL. 118, APR. 11, 1983, P. 47-50,
55-57.
MAJS: /*AIRCRAFT PERFORMANCE/*F-15 AIRCRAFT/*FIRE CONTROL/*FLIGHT CONTROL/*
FLIGHT TESTS/*SYSTEMS INTEGRATION
MINS: / AIRCRAFT MANEUVERS/ AUTOMATIC CONTROL/ DRONE AIRCRAFT/ ELECTRO-OPTICS/
HEAD-UP DISPLAYS/ MILITARY TECHNOLOGY
ABA: R.B.W.
ABS: THE PERFORMANCE CHARACTERISTICS AND DESIGN FEATURES OF THE F-15 INTEGRATED
FLIGHT/FIRE CONTROL (IFFC) SYSTEM ARE REPORTED. THE SYSTEM WAS BUILT TO
COMBINE CONVENTIONAL PILOT INPUTS WITH AUTOMATIC CONTROLS GENERATED BY AN
AIRCRAFT FIRE CONTROL SYSTEM, FLIGHT TESTS CONDUCTED WITHOUT THE ATLIS 2
ELECTRO-OPTICAL SENSOR/TRACKER, AND THE APG-63 RADAR TRACKER WAS FOUND TO
FUNCTION WELL IN AIR-TO-AIR GUNNERY SITUATIONS. THE IFFC PROVIDES AN EXTRA
DISPLAY IN THE HUD AS A DIRECTOR FIRE CONTROL SOLUTION. ADDITIONALLY,
SEVERAL SWITCH FUNCTIONS ON THE THROTTLES HAVE BEEN CHANGED. MANUAL FLIGHT
IS PERMITTED, AS IS AUTOMATIC CONTROL IN THE TERMINAL ATTACK PHASE. THE
RESULTS OF SEVERAL FLIGHT TRIALS ARE REVIEWED, AND THE BENEFITS OF
RELINQUISHING MANUAL CONTROL IN CLOSE SITUATIONS ARE STRESSED.
DEFICIENCIES IN SYSTEM RELIABILITY ARE DISCUSSED.
```

The acronym stands for Integrated Flight/Fire Control.

You'll find RECON a helpful tool in deciphering acronyms. Try this search technique on the ones your come across, or try it on some of ours, like: ATEGG, ITOS, VIFF, EADI.

National Aeronautics and Space Administration

Washington, D.C.
20546

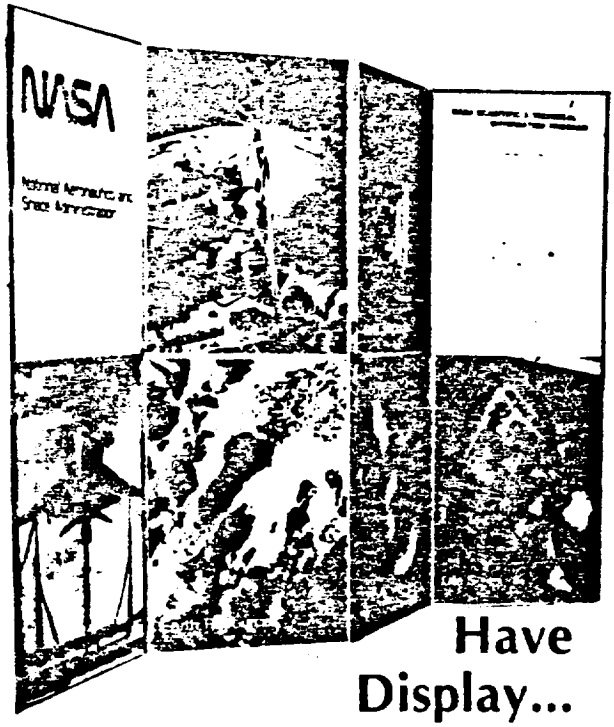
Official Business
Penalty for Private Use, $300

THIRD-CLASS BULK RATE

Postage and Fees Paid
National Aeronautics and
Space Administration
NASA-451

NASA

POSTMASTER If Undeliverable (Section 158
Postal Manual) Do Not Return



Have Display... Will Travel

Above you see the NASA STI Branch folding display, which is about six and a half feet high and eight and a half feet long. It has been displayed at the Annual Experimental Aircraft Association (EAA) Convention and Sport Aviation Exhibition (EAA Fly-In) in Oshkosh, Wisconsin and the American Society of Information Specialists (ASIS) Conference in Washington, D.C.

Included on the display are pictures depicting projects toward future flight, lunar exploration, earth resources, space operations, astrophysics, and life sciences, along with a brief announcement of the NASA STI program.

Any NASA Center can borrow the display for exhibition. If you are interested, contact Philip F. Eckert (202) 621-0140 to make arrangements.

Contributors to this issue of the Bulletin include: R. Buchan, P. Eckert, E. Fleek, Y. Turner, and J. Wilson.

RECON Bulletin and STI News is distributed to established users to keep them informed about NASA's scientific and technical information products and services.

RECON operational problems may be directed to the *RECON* Coordinator at:

NASA STI Facility
P.O. Box 8757
B.W.I. Airport, Md. 21240

Suggestions, material to be considered for inclusion, and comments may be directed to Yvonne Turner at the above address or telephone (301)621-0264, or John Wilson, NASA Headquarters, Code NIT-42, Washington, D.C. 20546, (202)755-3465.

Detach label with instructions for address or distribution change and mail to: ATTN: User Services Division, STIF.